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CARDIAC REHABILITATION ATTENDANCE AND WOMEN:
A STRAUSSIAN GROUNDED THEORY

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the University of Glamorgan/Prifysgol Morgannwg for the degree of
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For Louis

This thesis would not have been possible without the help I received from a number of people.

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the Regulations of the University of Glamorgan/Prifysgol Morgannwg. The work is original except where acknowledged or indicated by special reference in the text. No part of this thesis has been submitted for any other degree.

Any views expressed in the thesis are those of the author and in no way represent those of the University of Glamorgan/Prifysgol Morgannwg.

The dissertation has not been presented to any other University for examination in the United Kingdom or overseas.

Signed *Ray Higgs*

Date *15/Sept/07*

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ABSTRACT

Cardiac rehabilitation is a multidisciplinary intervention, designed to improve the life of the post myocardial infarction patient and reduce their morbidity and mortality. Although the benefits of cardiac rehabilitation apply equally to women as they do to men, research shows that patient non-attendance, particularly among elderly women, is an important problem. Several studies have suggested possible reasons for this, but it is difficult to draw conclusions since the evidence is based almost exclusively on men under 70.

This qualitative doctoral study set out to explore some of the factors that influence cardiac rehabilitation attendance in women following a myocardial infarction. Using a feminist informed Straussian grounded theory research approach, 25 post myocardial infarction women were interviewed about their cardiac rehabilitation programme.

Analysis of the data suggests that for the women who took part in this study having a myocardial infarction affected the women's sense of Self resulting in changes to the way they lived. Choosing to attend for post myocardial infarction cardiac rehabilitation had a positive impact upon the women ultimately leading to a 'Restoration of Self.' This restorative process, in turn, influenced cardiac rehabilitation attendance.

The grounded theory of Strauss was used as this approach facilitates the development of theory and suited this study's aim of exploring the process of women's attendance at CR programmes. By adopting a feminist informed Straussian grounded theory approach, a 'Restoration of Self' theory was developed to explain continued cardiac rehabilitation attendance in women.

Information gained from this study could be used to inform the development of gender specific cardiac rehabilitation programmes.

CHAPTER ONE: Introduction

1.1 Chapter Introduction

Within the United Kingdom (UK) heart disease is the single biggest cause of premature death amongst the female population (British Heart Foundation 2004). In Wales, the death rate from Myocardial Infarction (MI) amongst women for the year 2004 was 2721.

The British Heart Foundation (BHF) recommends that all patients with a confirmed diagnosis of MI should receive a place on a structured Cardiac rehabilitation (CR) programme. Such programmes have been proven to reduce post-MI morbidity and Mortality. However, according to McGee and Horgan (1992), Radley et al (1998) and Thow (2001) women are a frequently under-represented group on CR programmes. Research has also shown that despite often having greater needs, women are consistently identified as being less likely to be invited to or attend CR programmes post-MI (McGee & Horgan 1992, Pell & Morrison 1998, Halm et al. 1999, Melville et al. 1999, King et al. 2002, Lane et al. 2001, Cooper et al. 2002). Further, a number of research studies have demonstrated that gender differences exist within CR programmes, suggesting that women are more likely than men to discontinue post-MI CR (Ades et al 1999, Beswick et al 2005). Other research has questioned whether CR programmes actually meet all the needs of women, post-MI (Day and Batten 2006). In addition, McSweeney and Crane (2001) and Scott et al (2002) have identified a number of factors that can inhibit CR attendance in women, such as family dependents, co-morbidity and distance to CR centre.

This qualitative doctoral study was undertaken to explore some of the factors that affect women's continued attendance to phase three post-MI CR programmes. The findings from this study provide useful information into the role that post-MI CR plays in the recovery of women and demonstrates that, for the women who took part in this study, CR attendance was influenced by a process of Self restoration.

Before discussing my research study, a number of important issues need to be raised pertaining to the structure and format of my doctoral thesis, as this will make reading what follows clearer and easier to understand.

Firstly, I have written this thesis using the first person format. As Norton (1999) acknowledges, the use of 'I' is consistent with qualitative research and the first person approach suited the qualitative nature of my research. Indeed, it has been argued that the use of the third person is inconsistent with qualitative research (Webb 1992, Karim 2002).

Secondly, throughout this thesis I have included, where appropriate, excerpts from interview transcripts. Although these are sometimes rather long I found it necessary to include them, especially when highlighting a particular point. Likewise, I have also included memos. Memoing is essential when undertaking grounded theory as the process of memo writing helps in the development of theory. I have, therefore, included memos in my thesis out of necessity. Including memos was informed by the work of Ryan (2006) who recommends using memos to provide additional information on thought processes and theory development.

Another important issue is that of how I refer to the 25 women who took part in my study. Throughout this thesis I often refer to the participants who took part in the study as 'my sample' or 'my participants'. I am aware that, from a feminist perspective, a male researcher, such as myself, referring to a sample of women as 'his' is questionable. However, when discussing my research and comparing my findings with those of others, it is easier and less confusing to refer to my sample as 'my sample' so as to avoid confusion about whom I am discussing. I hope, therefore, that this is not interpreted as a form of what Roberts (1997) refers to as 'male researcher arrogance' rather this is a necessary writing style.

Lastly, all names have been changed in order to protect the confidentiality of all of the participants and rehabilitation staff who were involved. When names are used, they are fictitious.

1.2 Study Overview

I wanted to explore why women continue to attend CR programmes after experiencing an MI and so I interviewed 25 women CR attendees who were enrolled on a mixed sex CR programme. I conducted interviews within the CR departments of three hospitals in South Wales, employing a feminist informed Straussian grounded theory research methodology. Before I could undertake my doctoral study thorough planning was required. I needed to draw up a timeline to structure my applications procedures, reading, data collection and analysis and my writing. For the majority of the time my project ran smoothly. I did have initial problems gaining ethical approval and this was due to senior cardiologists not understanding qualitative research.

Before I could start my research I needed to submit a research proposal to the University's Departmental Research Proceedings Committee (DRPC). After successfully registering and enrolling I was able to start the process of seeking ethical approval for my study. I applied to the Multi-Centred Research Ethics Committee (MREC) for Wales and after a meeting to discuss patient access and any potential patient risk, ethical permission was granted for me to approach the three hospital sites where this study was undertaken (see Appendix One).

Being granted ethical permission meant that gaining hospital permission was relatively straightforward. I met with senior hospital staff and once I had explained my proposed study I was allowed to approach both rehabilitation staff and patients and ask them about their involvement. I then sent out 40 information letters to the three hospitals. Staff volunteered to help me access my sample by agreeing to pass on these letters to eligible patients. Of the 40 letters sent out, only 25 were actually given to patients. Because saturation of concepts was reached after 25 interviews the remaining 15 letters were not needed.

Soon after meeting with staff, patients contacted me either directly or through their CR nurse. I would then arrange to meet the patient after their next CR class.

Interviews, data collection and concurrent data analysis continued for a period of up to one year. During this time research literature was continuously accessed and reviewed and theory was developed. Initial ideas about my data were published in an academic journal (see Appendix Nine).

Once saturation of my developed categories had been achieved I ceased sampling and started to write up a first draft of my thesis. Table 1.1, below, represents a time-lined overview of my study.

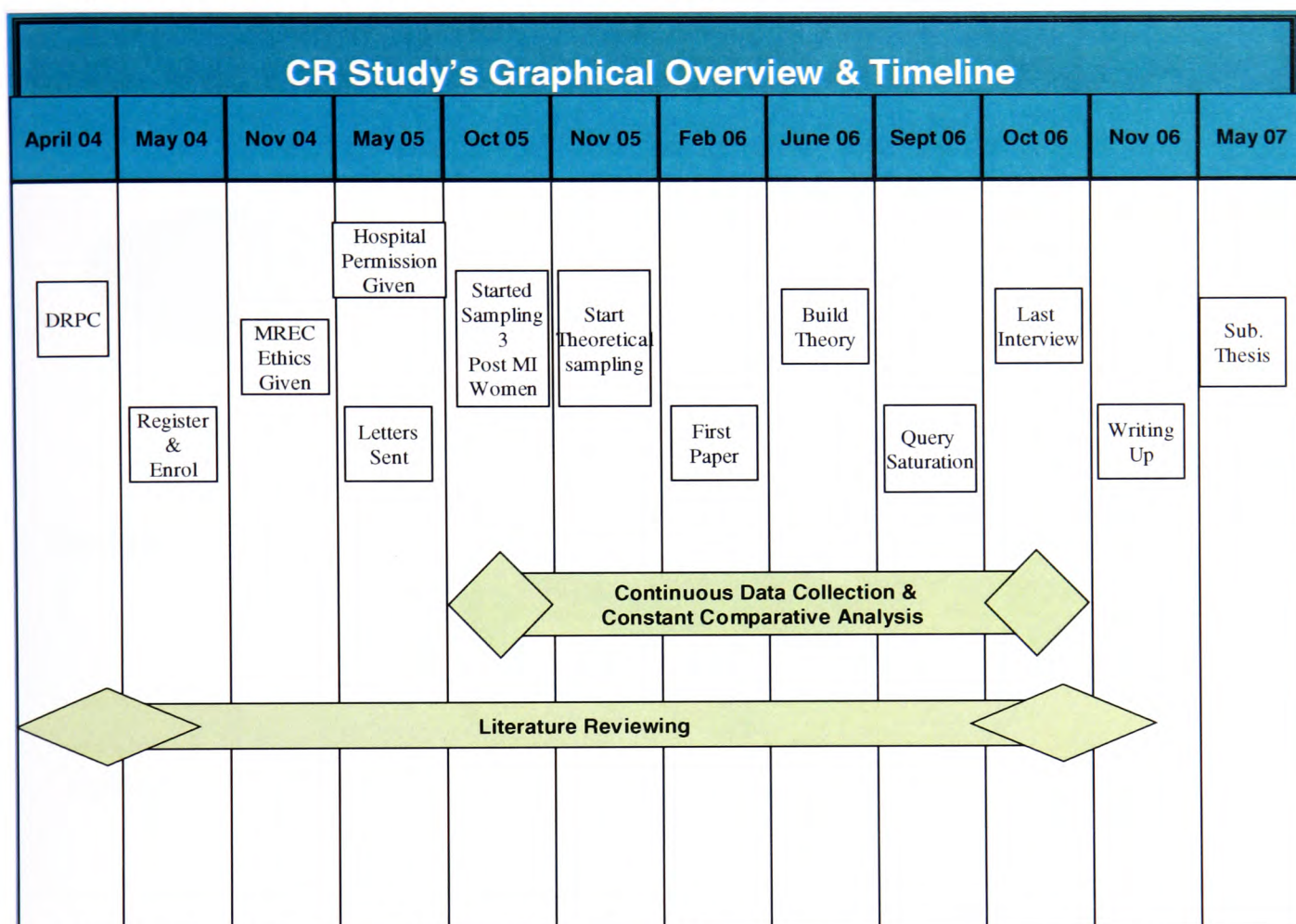


Table 1.1 Graphical Overview & Timeline of Study

My CR attendance theory was developed using both Straussian grounded theory and feminist theories of Self. Data were analysed to identify recurrent themes, with interview text being coded and conceptualised in order to develop categories and build a theory. It is difficult to explain simply and correctly a method that happens sequentially, subsequently, simultaneously, serendipitously and scheduled (Glaser 2004). Because of the circular nature of grounded theory, providing a representational model is difficult. However, I have drawn up an overview of the theory generating process that I used in my study. Firstly, I purposefully sampled three post-MI women and started to collect data. Once open coding had started I was able to move on to theoretical sampling and generate additional concepts. As concepts emerged these were developed into categories, which were subsequently analysed through axial

coding. Through the constant comparative process theory was developed with one core category being chosen during selective coding. This entire process was facilitated by constantly reviewing literature and writing memos. Diagram 1.1, below, depicts this process.

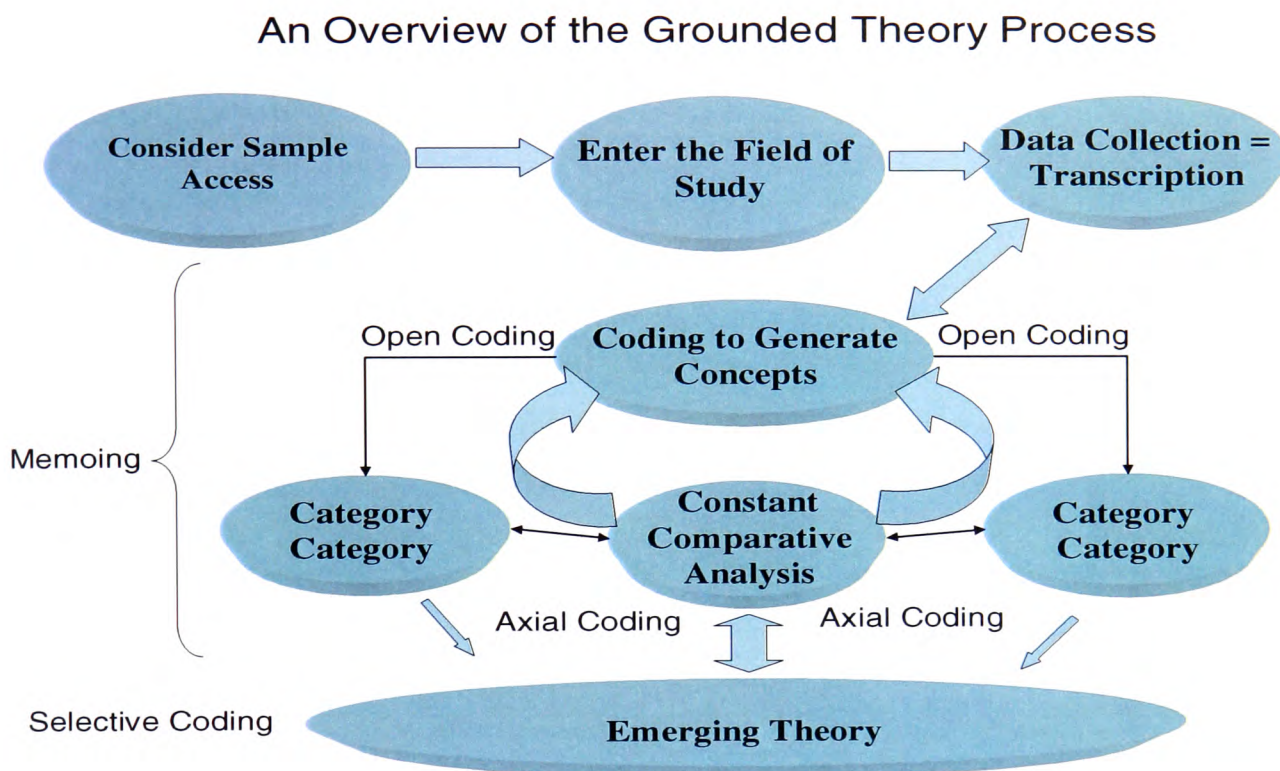


Diagram 1.1 Process Overview

1.3 Thesis Structure

This chapter has served to introduce the subject of my study and explore some pertinent issues related to the structure of this thesis.

The next chapter explores some background information and literature pertaining to my research study. It explains why the research was undertaken and states the research's main aim and the specific research question that was set and explored.

Chapter three discusses how I accessed my sample and carried out the study. The research methodology of grounded theory and the use of a feminist perspective will also be discussed along with a discussion on why I specifically

chose a Straussian grounded theory approach in order to explore women's attendance at post- MI CR programmes.

Chapter four provides a detailed account of how I analysed my data, discussing the processes of open, axial and selective coding, the conceptualisation of text and category development. Chapter four also presents the main findings of my study as well as an account of how I formulated my 'Restoration of Self' theory to explain continued CR attendance in my sample of 25 women.

It is usual, when writing a doctoral thesis, to include separate chapters on data analysis and findings. However, due to the circular nature of grounded theory it was not possible for me to write two separate chapters dealing with analysis and findings. As I will discuss, later, when using grounded theory initial findings are necessary in order to complete data analysis and so in chapter four I have combined together the process of data analysis with the study's findings.

Chapter five provides a general discussion of the findings and my developed theory relating both my findings and my grounded theory to previous research studies that have explored CR attendance in women.

Chapter six draws conclusions and make some clinical recommendations based on my study's findings. It also explores my study's limitations. This is followed by a reflexive discussion, in chapter seven, on the whole process of conducting and writing up a doctoral study.

Finally, the appendices contain numerous supplementary materials such as diagrams, letters and interview transcripts, which are referred to throughout.

CHAPTER TWO: Background to the Study

2.1 Chapter Introduction

This chapter provides some background information pertaining to the research project. It will explain why the research was undertaken and states the research's main aims and the specific research question that was set and explored. It also reviews some of the pertinent literature related to the research project, CR and the research demonstrating the benefits of attending CR programmes post-MI. It also reviews the research literature related to the problem of CR non-attendance among women.

2.2 Background to the Study

Coronary Heart Disease (CHD) kills more women in the UK than any other single disease, including breast cancer, lung cancer or respiratory disease (2006). In Wales, 16,000 female deaths resulted from CHD during the period from 1998-2000. Nationally, the incident rate of MI for women aged 30 – 69 is 200 per 100,000 (BHF 2006). From these incidence rates the BHF (2006) estimate that in the UK 20,000 MI's occur every year in women. In Wales, 2807 women of all ages died in 2004 from CHD (BHF 2006). To address these figures, targets for the Welsh Assembly Government aim to:-

- Reduce CHD mortality in all women aged between 64 – 74 years from 200 per 100,000 in 2002 to 100 per 100,000 in 2012.
- To improve CHD mortality in all age groups and at the same time aim for a more rapid improvement in the most deprived groups, such as the elderly and those from low socio-economic backgrounds.

Further, the National Service Framework (NSF) recommends that the National Health Service (NHS) implement and monitor policies that reduce the prevalence CHD risk factors, reduce heart disease in the population and encourage the development of CR services.

In relation to the female population, heart disease is one of the leading causes of death amongst women in the industrialised world, with over 44,809 women dying of CHD disease in the UK each year (BHF 2006).

Myocardial Infarction is the primary cause of death for women who are more than 40 years of age. Meta-analysis of research studies suggests that women's risk of dying during the first two weeks after a heart attack is double that of men (Stone 1995, Schenck-Gustafsson 1996). Further, no aspect of women's lives escapes the impact of heart disease (Rhodes and Bowles 2002).

The Department of Health (DoH 2000) has identified health gains and service targets to achieve increases in the quality of life of all those persons suffering from cardiovascular disease. Overall, health gains aim to reduce premature deaths from cardiovascular disease. Further, the DoH maintain that post-MI rehabilitation programmes should take place at an early stage and be continuous as research has shown that post-MI rehabilitation can reduce the number of post-MI deaths, reduce post-MI morbid events and result in an increase in quality of life for the post-MI patient (Jones and West 1996, Tod et al 2002).

To achieve these health gains and service targets, CR programmes provide patients with knowledge about their illness, provide information about how the post-MI patient can improve the quality of their life and provide the opportunity for patients to undertake structured exercise regimens. Such exercise improves cardiac function and aids recovery (Rhodes and Bowles 2002). However, despite the established and published benefits of CR, a major problem identified within CR research studies is that of patient non-attendance, particularly among women (Moore 1996, Thow 2001). Although a number of studies have suggested possible reasons for this, Thow (2000) for example, it is difficult to draw conclusions given that evidence gained from research into this area is based almost exclusively on male patients under the age of 70 (Hamilton and Seidman 1996, Thow et al 2000). Further, different research studies have produced different and conflicting results and some of these will be discussed later, in my discussion chapter.

A number of studies have suggested that women are still not gaining the post-MI care and attention that they require (Thow 2000, Rhodes and Bowles 2002). Although great strides have been made in raising awareness that heart disease kills thousands of women every year, research suggests that women are more likely not to be enrolled upon a rehabilitation programme and those that are, are

more likely to drop out of such programmes much earlier when compared with men (Thow 2001, Scott et al 2002).

Having read some of the available research on CR and CR and women, it was initially intended to undertake a qualitative piece of research that would aim to explore the factors that affect women's decisions to *withdraw* from and *discontinue* their CR programmes. Such a study would have provided additional information on the problem of non-attendance to post-MI CR programmes amongst women. However, it became apparent to me, very early on in the data collection / data analysis stages of my research, that rather than withdrawing from their CR (as the published literature had suggested they might do) the women who took part in my research study actually continued to attend and successfully completed their CR programme. Further, when I questioned these women about their decisions to continue with their CR programme the reasons they gave were recurrent, revealing and did not always fit with what the established literature had suggested.

Thus, very early on in my study, the focus of my research study changed from an exploration of CR *discontinuation*, to an exploration of CR *continuation*. I subsequently needed to find out, then, what factors affected these women's continuation of post-MI CR programmes.

Whilst the published literature is clear in claiming that CR programmes can improve the quality of life of the post-MI patient and can help reduce post-MI mortality, the claims, made by many research reports, that women attend and comply less to CR programmes are what, initially, influenced me to undertake this research study. The nature of my chosen methodology, grounded theory, meant I was able to change the focus of my study and allowed me to reformulate my original research question in light of the fact that all 25 of my participants completed their CR successfully. Indeed, it is recognised that grounded theory allows initial research questions to change, viewing such changes as an integral part of the whole research process (Robson 2002).

Once the focus of my research had changed from discontinuing of CR attendance to continuation of CR attendance, two key questions were then considered:

1. What affected participants' decisions to initially attend CR?
2. Once enrolled, what factors affected the women's continued CR attendance?

2.3 Research Question

Through considering these two key questions, the following research question was formulated:

'What factors affect women's continued attendance to phase three post-MI CR programmes?'

In an attempt to explore and answer this question, this doctoral research study was undertaken. A qualitative research design was employed as I felt that such an approach would yield much information related to women and their continued attendance to post-MI CR programmes. Specifically, a Grounded Theory research methodology was employed because this method is particularly useful in exploring and explaining social and psychological processes and would allow for an exploration of the decision-making process women undergo with regards to their CR. Also, theory development might add to the existing body of CR attendance knowledge.

2.4 Cardiac Rehabilitation

The original 1969 World Health Organization (WHO) definition of CR stated that:

"Cardiac rehabilitation is the sum of activities to ensure them (the patients) the best possible physical, mental and social conditions so that they may, by their own efforts, resume as normal a place as possible in the life of the community." (WHO, 1969: 34).

This original definition, however, did not claim that CR was a secondary preventative measure and fails to take into account the changes in CR that have taken place since 1969. Recognizing this, the WHO (1993) has suggested a new definition which more accurately reflects the aims of modern CR:

"The rehabilitation of cardiac patients is the sum of activities required to influence favourably the underlying cause of the disease, as well as to ensure the patients the best possible physical, social and mental conditions so that they may resume their place in society." (WHO, 1993: 12)

CR cannot be regarded as an isolated form of therapy, but must be integrated with the whole treatment of cardiac care (WHO 1969, 1993). CR becomes part of the total patient care. It is an active process and individuals taking part must assume responsibility for their own health, well being and quality of life (Jones and West 1996).

2.5 Phases of Cardiac Rehabilitation

Within the UK CR programmes are delivered in four distinct phases and consist of exercise, educational and relaxation interventions.

Phase I

This covers the general health advice given during the acute phase of illness which takes place in hospital, usually in a coronary care unit, post-MI or post cardiac surgery. This phase lasted between 5-10 days in the hospitals that were involved in my study.

Phase II

This is the period after hospitalisation when the patient returns home and is under the care of a general practitioner. Patients may be contacted by a local CHD specialist practice nurse during this time and given general health advice or introduced to a 'heart' self help book. This phase occurs approximately 2 – 6 weeks after experiencing a myocardial infarction.

Phase III

When the hospital medical team consider a patient is fit enough they will be invited to attend the out patient rehabilitation exercise and/or health education programme. Phase III rehabilitation classes involve the safe incremental progression of physical activity (under medical supervision) together with health education, stress management and relaxation. In this study, three hospital CR departments were involved, with the length of the CR programme lasting between 6-8 weeks.

Phase IV

Patients successfully completing phase III exercise classes are referred on to local phase IV exercise classes to continue improving their fitness levels. Phase IV CR often takes place in outpatient departments or community centres. This final phase can last indefinitely.

Due to ethical and methodological constraints, the focus of my research study concentrated upon continued attendance to the in-hospital phase III CR phase. Accessing patients during phases one and two would not have been possible and phase four is more about sustaining the benefits of phase three CR than a distinct phase of its own.

2.6 Background Literature

Before a review of the CR literature is provided, it is necessary to address the very important issue of the place of literature in grounded theory research.

When employing grounded theory some claim that research literature should only be accessed during the later stages of a research project, for example, during data analysis and in the discussion of one's findings. For Glaser (2004) it is clear that when using grounded theory methodology, in order to avoid pre-existing literature 'contaminating' the grounded theory process and influencing the pre-conceptualization of the research, extensive reading of available literature should be avoided. Indeed, Glaser (2004) states:

"To undertake an extensive review of literature before the emergence of a core category violates the basic premise of grounded theory; that being, the theory emerges from the data not from extant theory." (Glaser, 2004:12)

Glaser (2004) continues, maintaining that pre-existing literature can cloud the researcher's ability to remain open to any emerging theory. Instead, he believes that literature should be seen as another source of data, to be collected, analysed and integrated into the emergent theory. However, a number of more recent grounded theorists maintain that, in fact, the impact of pre-existing literature on the development of theory can be minimised and that no matter how hard a person tries, no researcher ever enters into an exploration of a research problem without some prior knowledge of what is it they are interested

in (Charmaz 2006). Further, in some cases, pre-reading literature is necessary as it allows the researcher to develop specific research questions.

Strauss and Corbin (1998) believe that, providing a researcher adheres to the prescriptive way of doing (their) grounded theory, then the impact of pre-existing literature can be minimised.

Another argument in support of a 'pre-data collection' literature review in grounded theory is put forward by Clarke (2005). According to Clarke (2005) if one is undertaking nursing research, it is very important, ethically, to ensure that any research question that is formulated is developed from gaps in patient care or service provision knowledge and not just from the idle curiosity of an academic or research student. One needs to explore where gaps in knowledge are and this can only be done by reviewing the literature (Bryman 2001, Clarke 2005). Thus, an exploration of available literature is, therefore, necessary to highlight gaps in care and treatment provisions. Further, a review of the literature is necessary in order to develop specific patient related research questions.

Charmaz (2006) discusses the phenomenon of the 'sensitising concept' and its use in grounded theory research. Sensitising concepts provide researchers with initial ideas to pursue and 'sensitise' the researcher to ask particular questions. Reviewing pre-existing literature is one way to sensitise oneself and this process helps in the development of formulating a research question and in formulating the questions to be asked during interviews.

Together, these issues provided me with a justification for undertaking a literature review, prior to collecting any data, as part of this grounded theory research study. I cannot claim not to have read some of the available research literature on CR or CR attendance. However, as I used a Straussian grounded theory approach I do not feel that this pre-reading adversely affected my study or impacted too heavily on my findings. Further, although I did review some of the research literature related to CR and women during the initial stages of my study, I went back to this literature once I had analysed my own data comparing my findings with those of others. As such, my 'treatment' of the literature, here in this chapter, is not as detailed as it is in the discussion chapter (see pages 190-265).

2.7 Literature Search Strategy

A literature search strategy was employed to identify research that related to the following:

- Referral to and attendance at post-MI CR
- Benefits of CR post-MI
- CR, women and attendance

Databases were searched from 1960 to March 2007 and included: MEDLINE, EMBASE, CINAHL, PsycINFO, PUBMED and The Cochrane Library. Initially, no limits or restriction were imposed and this meant that many comment pieces, editorials as well as research studies were obtained from many different countries with differing cultural backgrounds, many of which I deemed not appropriate for my study.

For example, a 'keyword' search using the CINAHL database alone produced over a 1000 papers related to CR. Many of these references were not appropriate, either because they were not research papers or because they did not focus on women or attendance. To narrow down the literature, in order to focus on women and CR attendance, I ran a title search using the combined terms of MI + Cardiac Rehabilitation + Attendance + Women. I also ran various combinations of these terms. Because I was writing at doctoral level I obviously needed to include not only comment pieces and articles but also peer reviewed research papers and so I further focused my literature searching by using the 'Search Research Papers' strategy. This process was repeated using all of the databases mentioned above. Undertaking these processes produced 214 research papers related specifically to post-MI CR attendance in women. Research papers that were written in a foreign language were excluded. I then undertook similar searches only this time substituting the word 'cardiac' with others such as 'heart' / 'coronary.' Further, I also conducted searches using variations on the term 'women', using such terms as 'gender' and 'female' instead.

Combining all of these strategies together yielded a total of 778 research papers related to post-MI CR attendance and women and included papers from

the United Kingdom, the United States, Europe (provided it was written in English) and the Commonwealth. Papers were reviewed for their relevance to my study and whether or not they could contribute to my understanding of CR attendance.

The majority of the research literature that I reviewed was of a very high standard. Given the databases that I used it was unlikely that I was going to find many sub-standard research papers. However, this is not to say that I merely read the literature uncritically. When reviewing those academic papers for inclusion into my thesis and to inform my study I did analyse them for their quality, specifically considering the following critical factors:

- Whether the study had been poorly designed or poorly conducted
- Whether findings and conclusions were justified
- The thoroughness of the discussion section
- Whether the paper identified areas for future research
- What the paper contributed to understanding post-MI CR attendance in women

When reviewing published papers for their relevance to my study I also asked myself the following:

- Can this research paper contribute to my question development?
- What does the research paper add to my knowledge of CR?
- Does the research highlight / suggest any factors which might affect CR attendance?
- Do my findings contradict any of those found in the research literature?

The research literature accessed during my study set my own research into its historical perspective enabling me to compare my ideas with those of others. This literature also demonstrated why CR and issues surrounding CR attendance continue to be important elements in cardiac health care.

Please see Appendix Two for an example of the literature strategy that I employed.

2.8 Cardiac Rehabilitation Literature

The aims of CR are to promote secondary prevention and improve both the quantity and quality of life by attempting to alleviate the physiological and psychological toll of MI by reducing risks of re-infarction, managing symptoms, and allowing clients to regain control of their lives (Daly et al. 2002, Tod et al. 2002).

Numerous research studies have clearly demonstrated the benefits of CR and only limited space will be given to this literature here. A more in-depth discussion will be provided of the literature related to women and CR, as this was the primary focus of this research study. Further, a detailed analysis of the literature related to the main findings of my study will be provided in the discussion chapter (pages 190-265) where I will critically discuss, compare and contrast my findings with those of others. This approach is appropriate when undertaking qualitative research (Mason 2002).

2.8.1 Cardiac Rehabilitation

Oldridge et al (1988), Wenger et al (1995) and Marchionni et al (2003) have all demonstrated that CR offers patients a long term programme of cardiac care with the potential benefits of CR including reductions in mortality, morbidity, depression and improved quality of life. In a recent meta-analytical review of 48 randomized control trials it was shown that CR can reduce 'all cause' mortality by 20% and can reduce cardiac mortality by 36% (Taylor et al 2004).

Meta-analyses of exercise-based CR trials by Angus and Grey (2004) have shown improved survival and significant improvements in cardio-respiratory fitness for individuals who have sustained an MI. Several other meta-analyses have concluded that comprehensive, exercise-based CR programmes can reduce mortality rates in patients after myocardial infarction (Oldridge et al 1988, O'Conner et al 1989, Linden 1996, Taylor et al 2004).

The two classic and widely cited meta-analysis of CR programmes include Oldridge et al (1988) and O'Conner et al (1989). To overcome the problem of not being able to detect small but clinically important benefits in mortality in

randomized clinical trials of exercise and risk factor rehabilitation after MI with small sample sizes, Oldridge et al (1988) carried out a meta-analysis on the combined results of ten randomized clinical trials that included 4347 patients. The pooled odds ratios of 0.76 (95% confidence intervals, 0.63 to 0.92) for all-cause death and of 0.75 (95% confidence intervals, 0.62 to 0.93) for cardiovascular death were significantly lower in the rehabilitation group than in the control group, with no significant difference for nonfatal recurrent myocardial infarction. The results of this meta-analysis suggest that, for appropriately selected patients, comprehensive CR has a beneficial effect on mortality but not on nonfatal recurrent myocardial infarction. Likewise, O'Conner et al (1989) undertook a meta-analysis of 22 randomized trials of rehabilitation with exercise after myocardial infarction and concluded that CR can reduce post-MI mortality.

In a meta-analysis of 37 studies which examined the effects of psycho-educational (health education and stress management) programmes for CHD patients, Dusseldorp et al (1999) suggest that these programs yielded a 34% reduction in cardiac mortality; a 29% reduction in recurrence of MI and significant ($p < .025$) positive effects on blood pressure, cholesterol, body weight, smoking behaviour, physical exercise, and eating habits.

More recent research studies have confirmed the benefits of exercise-based CR, suggesting that participation in CR improves the quality of life of cardiac patients. For example, Taylor et al (2004) analysed 48 trials with a total of 8940 patients. Compared with standard care, CR was associated with reduced 'all-cause' mortality (odds ratio = 0.80; 95% confidence interval : 0.68 to 0.93) and cardiac mortality (OR = 0.74; 95% CI: 0.61 to 0.96); greater reductions in total cholesterol level (weighted mean difference, -0.37 mmol/L [-14.3 mg/dL]; 95% CI: -0.63 to -0.11 mmol/L [-24.3 to -4.2 mg/dL]), triglyceride level (weighted mean difference, -0.23 mmol/L [-20.4 mg/dL]; 95% CI: -0.39 to -0.07 mmol/L [-34.5 to -6.2 mg/dL]), and systolic blood pressure (weighted mean difference, -3.2 mm Hg; 95% CI: -5.4 to -0.9 mm Hg); and lower rates of self-reported smoking (OR = 0.64; 95% CI: 0.50 to 0.83).

While Taylor et al's (2004) study provides evidence that CR can reduce post-MI mortality it did not demonstrate any significant difference between CR and standard care in terms of improvements in health-related quality of life. In

contrast, Linden et al (1996) performed a statistical meta-analysis of 23 randomized controlled trials that evaluated the additional impact of psychosocial treatment of CR from documented CHD. Anxiety, depression, biological risk factors, mortality, and recurrence of cardiac events were the clinical end points studied. Mortality data were available from 12 studies, and recurrence data were available from 10 of the 23 studies. The studies had evaluated 2024 patients who received psychosocial treatment vs 1156 control subjects. Results demonstrated that the psychosocially treated patients showed greater reductions in psychological distress, systolic blood pressure, heart rate, and cholesterol level (with effect size differences of -0.34 [corrected], -0.24, -0.38, and -1.54, respectively). Patients who did not receive psychosocial treatment showed greater mortality and cardiac recurrence rates during the first 2 years of follow-up with log-adjusted odds ratios of 1.70 for mortality (95% confidence interval [CI], 1.09 to 2.64) and 1.84 for recurrence (CI, 1.12 to 2.99). Thus, along with evidence to support the claim that CR can reduced post-MI mortality the above study also demonstrates evidence that CR can result in psychological improvements.

The psychological improvements seen in patients who attend CR is supported by Yoshida et al (1999) who measured the psychological status assessed by the Spielberger state-trait anxiety inventory questionnaire (STAI) and the self-rating questionnaire for depression (SRQ-D). Thirty-four patients (27 men, seven women) with MI who did not participate in the rehabilitation programme served as a control group. After participation in the rehabilitation programme, exercise tolerance and the serum lipid profiles of the patients were improved compared with those before rehabilitation. These parameters had improved significantly six months after rehabilitation. The STAI anxiety score was improved significantly and the SRQ-D depression score tended to be improved just after the rehabilitation programme. Regular physical activity was continued even six months after the completion of the programme. The authors of this study claim that CR programmes improved the management of cardiac risk factors and the psychological status in patients with MI. Further, CR may contribute to the secondary prevention of MI as well as the recovery of physical and psychological activities.

In their American study, Pasquali et al (2003) obtained the rehabilitation status of 730 patients and reported 23.6% CR participation. Participants had a significant improvement in perceived quality of life over a 6-month period, as assessed by the Medical Outcomes Study Short Form-36 (SF-36). In a similar but small-scale study of 149 clients conducted in Australia, Hawkes et al. (2003) reported 26% CR. However, in contrast to Pasquali et al's (2003) report, Hawkes et al (2003) found no significant improvements in SF-36 scores from baseline to 6 months. However, differences in the model and contents of these rehabilitation programmes between the United States and Australia might have given rise to some variations in the measured outcomes.

Despite the evidence supporting the claim that CR reduces mortality, not all agree that CR does reduce mortality or morbidity when compared with standard non-rehabilitation care. For example, in a multicentre randomised controlled trial in six hospitals in England and Wales, Jones and West (1996) compared patients referred to comprehensive CR with those who did not receive structured CR. Outcome measures at one year included mortality, morbidity, cardiac medication, health service usage; psychological wellbeing and quality of life on standard previously validated scales, cardiac risk factors including smoking, drinking, diet and leisure time activity. Jones and West (1996) maintain that there were no significant differences between the two groups in the primary endpoints of mortality or cardiac events, and no significant differences in any of the eight domains of the generic health/illness scale (measured using the SF36 scale) nor in three domains of psychological wellbeing anxiety, depression and general wellbeing. Concluding the research, Jones and West (1996) maintain that it is questionable as to whether all aspects of CR are effective.

Thus, the issue as to whether CR does have an effect upon mortality, cardiac or psychological morbidity, cardiac risk factors, activities or quality of life post cardiac event is still debated. Disagreements still occur because of the quality of some of the published literature and because for many of the meta-analysis studies undertaken, populations are predominantly male, middle aged and low risk. Further, meta-analysis as a research method is itself problematic. Differences in patient populations, study designs, intervention techniques, and

lack of details in many reports question the validity of applying meta-analytical techniques to CR studies.

I performed a database search in order to compare the number of meta-analysis studies that support the claims that CR reduces post cardiac event mortality and morbidity with those that do not. Combining the search terms; Cardiac Rehabilitation + Meta-Analysis and then searching the CINAHL, MEDLINE and PUBMED databases results in 38 results (March 2007). Studies were excluded if they were not relevant, were not true meta-analysis or if they were mere comments or reviews. Table 2.1 provides a list of some of the key meta-analysis studies that support the claims that CR improves the lives post cardiac event patients compared with those meta-analysis / studies that do not.

Meta-analysis studies claiming no beneficial effects of CR	Meta-analysis studies claiming CR benefits
Babbio (1998) 37 studies included Micevski (2002) 12 studies included	Taylor et al (2004) 48 studies included Oldridge et al (1988) 10 studies included Oldridge et al (2002) 3 meta-analysis trials Jolliffe et al (2000) meta-analysis included n=7683 Dusseldorp et al (1999) 37 studies included Linden et al (1996) 23 studies included O'Conner et al (1989) 22 studies included Mullen et al (1992) 28 studies included

Table 2.1: Meta-analysis of CR studies

I have drawn my own conclusion from reviewing this literature and it is reasonable to assert that there is evidence to support the claim that structured post-MI CR benefits patients, both men and women. I will now turn to the issue of women and CR.

2.8.2 MIs in Women and Gender Inequalities

The majority of research studies into heart disease and/or CR programmes focus upon men (Martensson et al 1998, Rhodes and Bowles 2002). Indeed, some still believe that heart disease is still only a problem encountered primarily by men (King et al 2002). Research suggests that women themselves

underestimate their risk of heart disease (Kristofferzon et al 2003). Other studies demonstrate that medical and nursing staff also underestimate the occurrence and significance of heart disease in women (Ebbesen 1999). Lockyer and Bury (2002) suggest that there is a more general assumption: that heart disease is a disease of a male dominated society. These false beliefs, it has been suggested, may account for why women are less likely to be diagnosed with a cardiac problem and why they are less likely to receive cardiac treatment and care. Despite these assumptions, however, there is some research which has examined heart disease in women. It shows that women do suffer from heart disease (Wenger 1994) and that they can benefit, just as much as men, from cardiac treatment, care and rehabilitation (Plach 2002). Reviewing this literature revealed a number of gender inequalities in relation to cardiac care and treatment. There is evidence to suggest that women are less likely than men to be diagnosed with an MI or to receive early or aggressive treatment for this condition (Pittman and Kirkpatrick 1994). Further, Ayanian and Epstein (1991) demonstrated that women who are hospitalised for coronary heart disease undergo fewer major diagnostic and therapeutic procedures than men, despite the fact that they are more likely than men to die of post-MI related conditions (Vaccarino et al 1999).

In analysing the data of 384,878 patients (155,565 women and 229,313 men) Vaccarino et al (1999) demonstrated that the overall mortality rate during hospitalisation following an MI was higher for women than for men. In their study, they demonstrated that this sex based difference varied according to age. Amongst the patients in the study who were less than 50 years of age, the mortality rate for the women was twice the rate for men. In adjusting their logistic-regression model, age appeared to account for most of the effect of sex on the mortality rate. However, when the interaction between sex and age was included in the model, it was found to be significant for every five year decrease in age, the odds of death during hospitalisation for women relative to men increased by over 11 percent. Comparing the results of Vaccarino et al's (1999) study with those others (Malacrida et al 1998, Herman et al 1997, Dittrich et al 1988, Fiebach et al 1990, Karlson et al 1994, Marrugat 1994) it can be concluded, with confidence, that women have a higher risk of early death following an MI than men. Some have argued (Bueno et al 1995, Maynard et al 1993) that the increase in death rate post-MI seen in women is due to the fact

the post-MI women tend to be older. However, Vaccarino et al's (1999) study demonstrated that the increased risk of MI experienced by the female group was inversely related to age; the younger the female patient, the greater the increased risk of death.

A number of authors have explored possible reasons for these differences and some have suggested that, compared with men, women receive less aggressive treatment during the early stages of myocardial infarction. Gan et al (2000), for example, reviewed the charts of 138,956 patients (49% of whom were women) who had been diagnosed with an MI. Using multivariate analysis Gan et al (2000) demonstrated that post-MI women were less likely than men to receive thrombolytic therapy within 60 minutes of MI and were less likely to receive aspirin within 24 hours after arrival at the hospital.

2.8.3 Women and Cardiac Rehabilitation (1)

A more detailed discussion of the research literature related to women will be presented later, in the discussion chapter, where I will compare it to some of my own findings. In this section, I merely want to highlight the issue of gender inequalities in relation to CR and women.

Despite the evidence that post-MI CR can reduce post-MI morbidity and mortality and improve the lives of all post-MI patients, research suggests that women are still not gaining the post-MI care and attention that government recommendations suggest they should receive (Clark et al 2004). Although great strides have been made in raising awareness that heart disease kills thousands of women every year, research suggests that women are more likely not to be enrolled upon a rehabilitation programme and those that are, are more likely to drop out of such programmes (Ades et al 1992, McGee and Horgan 1992, Radley et al 1998).

According to McGee and Horgan (1992) and Radley et al (1998), women are a frequently under-represented group on CR programmes and that, despite often having greater needs, women are consistently identified as being less likely to be invited or attend CR programmes (McGee and Horgan 1992, Pell and Morrison 1998, Halm et al 1999, Melville et al 1999, King et al 2002, Lane et al 2001, Cooper et al 2002). Also, a number of research studies demonstrate that

gender differences exist within CR programmes between men and women (Schuster and Waldron, 1991, Ades 1999, Beswick et al 2005).

Jackson et al (2005) developed a 4-category model of factors influencing CR programme referral, participation and adherence in men and women. Their model identifies health systems, disease, psychological functioning and demographics to explain low level of referral and adherence to CR programmes in both men and women. They claim that within these four areas gender differences exist between men and women and that these differences can account for the phenomenon of low female CR programme referral and adherence.

Ades et al (1992) explored gender-related differences in CR referral patterns and response to an aerobic conditioning programme in 226 hospitalised older coronary patients. Results found that women were less likely to enter CR despite their similar clinical profiles with the men. In explaining this, Ades et al suggest that referring physicians often hold the opinion that CR will be of little benefit to women and are, therefore, less likely to refer them onto a programme.

Bittner and Sanderson (2003) maintain that women have been underrepresented in both CR clinical care and research studies. This is in spite of the fact that research has shown that CR programmes can benefit women just as much as men and there is much evidence that women should attend and adhere to post-MI CR programmes given the benefits that can be gained. For example, Ades et al (1992) examined the exercise capacity of men and women, post-MI, and discovered that women's exercise capacity improved in line with those of the male patients. Cannistra et al (1992) explored the outcome of women in CR in terms of cardiovascular improvements and found that women and men achieved the same improvements in functional capacity as a result of their CR leading the authors to conclude that CR benefits women as well as men. Cannistra et al (1995) conducted a similar study to assess improvements in cardiac function following post-MI rehabilitation in white and black women. Results demonstrated that both groups experienced significant improvements in functional cardiac capacity. Further research by Lavie and

Milani (1995), King et al (2002), McAlister et al (2001) and Clark et al (2003) all support the claim that CR benefits women as much as men.

Despite the research claiming the potential benefits of CR for women, it is still suggested that women receive less CR than do men. Despite CR now being embedded in UK government policy, women are still under-represented in all aspects surrounding CR (Thow et al 2000, Clark 2004). Further, women are poorly represented in CR research (Thow et al 2000) and what research does exist shows that women's attendance at CR programmes is below that of men. Halm et al (1999) for example, examined the use of CR by men and women. Structured patient interviews and chart audits were used to explore CR eligibility criteria, referral and completion rates of the study's 87 patients. Results found that more men received a referral for CR (66%) from their physician than women did (48%). Further, the men had a higher completion rate compared with the women.

A number of studies have attempted to explore and explain this problem of non-completion / non-attendance to CR programmes in women citing a number of different reasons. Certain authors have suggested that women are less motivated to attend CR programmes, especially when they involve some form of exercise (Moore et al 2003). Wallwork (1996) found that women will participate in CR programmes and are willing to make lifestyle changes, providing CR programmes are delivered sensitively and if they are tailored to meet individual needs. If rehabilitation programmes fail to take into consideration the specific needs of participants then non-attendance will occur.

Kristofferzon et al (2003) reviewed and performed a meta-analysis on 41 research papers in order to summarise current knowledge about gender differences in perceptions of coping and social support among patients who have experienced myocardial infarction. In their study, Kristofferson et al (2003) maintain that women with coronary heart disease have physical, social and medical disadvantages compared with their male counterparts, which can influence their perception of recovery after cardiac events. Household activities were more important to women than to men and aided their recovery. Men were more likely to involve their spouses in their recovery, and resuming work and keeping physically fit were important to them. Women tended to report that

they had less social support up to one year after a myocardial infarction compared with men. They received less information about the disease and rehabilitation and experienced lack of belief in their heart problems from caregivers.

Clarke et al (2002) identified a number of factors that affected attendance to CR programmes. Although the research did not exclusively focus upon women, the study identified two broad factors that affected CR attendance: structural factors and personal factors. CR programmes 'not meeting patient's need' was cited as structural factors affecting rehabilitation attendance. Indeed, as Thompson (1996) maintains, CR programmes have been standardized to the needs of middle-aged men and, therefore, are at risk of not meeting the needs of female rehabilitation patients. Personal beliefs also influenced attendance at rehabilitation programmes, with those participants who held the belief that CR was non-beneficial more likely to discontinue with their CR than those participants who held positive beliefs about their CR.

2.9 Justification for the study

The literature discussed above provided me with the initial justification for carrying out my study. Whilst reviewing some of the very large amounts of CR literature I was initially struck by the lack of clear answers to a number of questions related to CR and CR and women. For example, there is evidence to show CR benefits women, yet many authors claim they are less likely to receive it and less likely to be involved in CR research. This seems contradictory. Further, although many authors suggest that women are more likely to discontinue post-MI CR the reasons given for this are varied and sometimes unclear. I wanted to explore and understand the phenomenon of CR attendance in post-MI women for myself. An exploration of CR attendance among women would provide valuable information on factors that either inhibit CR attendance or facilitate CR attendance and I felt a qualitative exploration would be justified. Identifying some of the factors influencing CR attendance might contribute towards improving our understanding of CR attendance in women.

2.10 Chapter Summary

Although the issue of reading literature prior to the collection of data is controversial when using grounded theory, this chapter explored some of the previous research that has investigated CR and its benefits, as well as the problem of CR attendance in women. A review of this literature provides background information and sets the scene for my study.

CHAPTER THREE: Methodology

3.1 Chapter Introduction

This chapter discusses the research methodology of grounded theory and provides a rationale for why I used this approach. It discusses the basic ontology and epistemology of grounded theory and goes on to discuss the different grounded theory approaches of Barney Glaser and Anselm Strauss. The second half of this chapter discusses how I undertook my study, focusing upon the research setting, the sampling and interview strategies that I employed and the methodological issues which arose.

3.2 Qualitative Research

According to Bryman (2001) qualitative research can be construed as a research strategy that usually emphasises the use of words, rather than the use of numbers and quantification, in the collection and analysis of data. Further, the qualitative research approach uses an inductive approach that stimulates theory development and generation (Silverman 2005).

The focus of this qualitative approach is different from that of the 'objectifying' approach taken in studies developed from the natural sciences. The deductive nature of quantitative research is far too rigorous to produce new, textually rich data and the preoccupation of quantitative researchers with statistical analysis does not lend itself to the production of new data or to understanding what lies behind a particular social phenomenon (Jackson 1998).

As this study was concerned with an exploration of women's decision-making with regards to attending CR programmes, a qualitative research methodology was the most appropriate and was, therefore, employed. Indeed, as Louis et al (2001) maintain, the research design and methodology that is employed in a research study should be appropriate to the research question or research aim that has been set.

This study aimed to explore the factors that affected women's decisions to attend for post-MI CR programmes. The specific research methodological design employed was based upon that of the Grounded Theory approach first put forward and developed by Glaser and Strauss (1967).

It is necessary for me to justify the use of this methodology, as well as to provide an overview of its epistemology, ontology and philosophical underpinnings. Further, because I used feminist literature to inform my study and because feminism was central to my study's post data analysis discussions, an overview of feminism and feminist grounded theory will also be provided.

3.3 Research Methodology

Although the aims of the study meant that a qualitative research design was the natural choice, in choosing a specific research methodology for the research, a number of factors had to be considered. For example, a research method was needed that would allow for an exploration of processes, as well as meaning. According to Abercrombie et al (1994) phenomenology lacks the necessary assumptions about the existence of causal powers inherent within social structures to be of use when exploring psycho-social processes. Thus, in order to explore women's decision-making with regards to CR, the phenomenological method would not have been the most appropriate method to use. Likewise, ethnography, with its focus upon culture, would have also been inappropriate.

I decided that the grounded theory research methodology was the most appropriate methodology to employ for an exploration of women's decision making and continued attendance at CR programmes. Indeed, according to Sheldon (1998) the grounded theory research approach:

"Appears to be well suited to providing nurses with an understanding of social behaviours so that they can enhance patient care." (Sheldon, 1998: 1).

Grounded theory can help and inform nurses about their practice and has been used widely within the discipline (Keddy et al 1996).

A CINAHL search for the term grounded theory, using the 'title' search strategy, revealed 1898 nursing research papers (March 2007). Although its use within the discipline of nursing is not without its critics, Silverman (2005) for example, is critical of its abundant use within nursing, the method has yielded much quality research. In short, the aims of the research meant that grounded theory was the most obvious and most appropriate research method to employ.

3.4 Grounded Theory

A research method was needed that would allow for an exploration of social processes, as well as meaning. One of the most commonly used frameworks for the undertaking of qualitative research is the grounded theory approach first developed by Glaser and Strauss (1967). There are a number of definitions of grounded theory, including the following by LoBiondo-Wood and Haber (1994):

“Grounded theory is used to generate inductively derived substantive and middle-range theories through systematic data collection and analysis and formal theorising based on substantive theories.” (LoBiondo-Wood and Haber, 1994: 264).

In the grounded theory method, theory emerges from the analysis of data. Indeed, LeCompte and Preissle (1994) maintain that analytical induction and constant analysis of data is vital in any qualitative research process.

The grounded theory approach is well suited for areas where there is minimal knowledge or when a new perspective on a phenomenon is required (Strauss and Corbin 1998, Glaser 2002, Maijala et al 2003). However, the term ‘grounded theory’ is now considered to be somewhat misleading (Charmaz 2006). This is because since its original conception in 1967 a number of variations on the grounded theory model have developed and while these variants share commonalities with the original idea of grounded theory, few can actually be considered ‘pure’ grounded theory. Further, since 1967, two broad schools of grounded theory have emerged; that of Anselm Strauss and that of Barney Glaser.

During the preparation of this thesis, a number of research articles and books, relating to grounded theory, were read and reviewed. Aside from the large number of variations on grounded theory used within the field of nursing and health care research, there exist a number of confusing and contradictory statements about grounded theory. It is my belief that such confusion arises from fundamental misunderstandings about grounded theory’s epistemological basis and ontological assumptions. Further, as previously stated, since 1967 the two original founders of grounded theory have split and diversified down two different methodological pathways. These issues will be explored in greater detail later in this chapter.

In the first instance, in order to justify the use of the specific grounded theory model used, it is necessary to provide a historical overview and general explanation of grounded theory and then to explore the different ways of undertaking grounded theory research.

3.4.1 History of Grounded Theory

According to Bogdan and Knopp-Biklen (2006) the history of grounded theory, indeed the history of qualitative research itself, is rooted in early American sociology and anthropology. Sociologists and anthropologists have always collected their data in the field. Early anthropological scholars and social scientists like Mead (1901-1978) and Malinowski (1884-1942) worked 'in-the-field' in an attempt to understand, describe and explore how people construct and make meaning of their lives. It is because qualitative researchers undertake this research out in the field that qualitative research is often termed naturalistic; because the researcher frequents places where the events he/she is interested in naturally occur.

An understanding of the historical roots of qualitative research is important if one is to understand the epistemology that underpins grounded theory. The assumptions of early anthropologists and sociologists are what shaped and influenced the development of grounded theory (Clarke 2005, Swanson 1990). Indeed, grounded theory shares many of the characteristics that are central to all qualitative research and include:

- The use of descriptive data
- The concern with process
- The use of induction, as opposed to deduction
- An interest in meaning(s)

Qualitative research is descriptive. Data are linguistic/pictorial rather than numerical and data can be in the form of interview transcripts, video tapes, written documents and / or photographs (Charmaz 2006).

A key characteristic of qualitative research is that of the preoccupation with process rather than end results. How are meanings derived? How do certain

behaviours assume normality? These are the kind of questions that concern qualitative researchers and what make it (as will be discussed in relation to grounded theory later) especially useful in exploring psycho-social situations where what is studied is subject to changes over a period of time.

The inductive manner in which data are analysed in qualitative research is the opposite of that undertaken within the traditional hypothetical - deductive reasoning method of traditional scientific enquiry. As such, qualitative researchers need to possess different skills than those involved in the more classic 'scientific' research.

The theme that permeates and joins these characteristics together is the notion that human experiences are mediated by interpretation (Objects, people, social situations and events do not possess their own meaning. Rather, meaning is conferred on them). The epistemological assumptions of grounded theory are derived from this symbolic interactionism, which explores the processes of interaction between people's social roles and behaviours. Interaction is symbolic because these processes use symbols, words, interpretations and languages (Denzin and Lincoln 2000).

Grounded theory is a general research method used within the social sciences and was developed by the sociologists Barney Glaser and Anselm Strauss in 1967. According to Clarke (2005)

"Glaser and Strauss sought to make qualitative sense within an increasingly quantitative and scientifically orientated discipline of sociology increasingly reliant upon mechanistic methods."
(Clarke, 2005: 3).

A grounded theory study aims to generate theory which relates to the particular situation forming the focus of the study. This theory is then grounded in data obtained during the study. According to Robson (2002):

"Grounded theory was formulated in reaction to the sociological stance prevalent in the 1960s which insisted that studies should have a firm a priori theoretical orientation." (Robson, 2002: 191).

Glaser and Strauss (1967) define grounded theory as:

"The discovery of a theory from data systematically obtained from social research." (Glaser and Strauss, 1967: 1).

In essence, grounded theory is not a description of a kind of theory, rather a way of generating theory. It empirically approaches the study of social life through qualitative research and analysis (Clarke 2005). Strauss and Corbin (1998) claim that grounded theory is not generated *a priori* and then subsequently tested. Rather, it is:

"... inductively derived from the study of the phenomenon it represents. That is, discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis, and theory should stand in reciprocal relationship with each other. One does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge." (Strauss and Corbin, 1998: 23).

As already mentioned, two different schools of grounded theory have developed since the late 1960s. Before a discussion can be given of these different approaches, an outline of what is now termed 'classic grounded theory' is given. Glaser (2004) maintains that when not mixed and 'jumbled together' with other qualitative research methods, the procedures of grounded theory are simple. The first essential feature of grounded theory is that data collection and data analysis occur simultaneously. Right from the very start of the research process the researcher begins to review, critically analyse and compare data that are gathered. Such data can only be gathered in the field (Glaser and Strauss 1967). The 'fields' of research might include hospitals, youth clubs, CR classes; anywhere where social processes are to be found. Within the field of study, data can be collected in a number of different ways. The most common is that of interviews. Indeed, as Robson (2002) maintains, although data collection may take the form of observations, analysis of text or participant observation, the interview is the central method of collecting data in grounded theory research. Through repeated returns to the field of study, the researcher gathers more and more data.

Upon the gathering of some initial data, the researcher must start to analyse them. As Clarke (2005) states:

"In the grounded theory method, the analyst (researcher) initially codes the data, word-by-word, segment-by-segment and gives temporary labels to particular phenomena." (Clarke, 2005: xxi).

Collected data are analysed to generate categories. According to Glaser (1995):

"The ability to conceptualise data is central to the grounded theorist." (Glaser, 1995: 2).

On entering a research situation the researcher's task is to understand what is happening within the situation and to explore how the players manage their roles. After each episode of data collection, the researcher makes a note about the main features to emerge. Glaser (2004) states:

"A good grounded theory analyst starts right off with regular data collection, coding and analysis. The start is not blocked by a preconceived problem, a methods chapter or literature review. The focus and flow is immediately into conceptualization using the constant comparative method. The best way in which to do grounded theory is to just do it." (Glaser, 2004: 204).

Glaser (1992) and Strauss and Corbin (1998) maintain that 'all is data.' When in a research situation, the researcher should not only focus upon what is said, but also on what is done; what is performed. The aim of grounded theory is to generate a theory to explain what is central in the obtained data. As Robson (2002) maintains:

"The first task of the grounded theorist is to find a central core category which is both at a high level of abstraction and grounded in (i.e. derived from) data that has been collected." (Robson, 2002: 493).

To do this requires a process through which data are systematically coded. Such a method is central to grounded theory methodology. As Strauss and Corbin (1998) maintain:

"Theories can't be built with actual incidents or activities as observed or reported; that is, from "raw data." The incidents, events, happenings are taken as, or analysed as, potential indicators of phenomena, which are thereby given conceptual labels." (Strauss and Corbin, 1998: 105).

3.5 Coding

In grounded theory, data are conceptualised and coded. Coded data form properties that build categories. Categories are then compared and a number of core categories emerge that explain the theory. This conceptualisation of data and the development of core categories are achieved by carrying out three different types of coding, as outlined by Strauss and Corbin (1998):

- Open coding – to code data, identify their properties and formulate categories.
- Axial coding – the process of relating categories and interconnecting them (axial coding is a contentious issue among grounded theorists)
- Selective coding – the process of selecting a core category or categories.

3.5.1 Open Coding

Open coding is the first part of the grounded theory analysis and is concerned with identifying, naming, categorising and describing phenomena found in data (Charmez 2006). According to Strauss and Corbin (1998) open coding is so called because in order to conceptualise data:

"We must open up the text and expose the thoughts, ideas and meanings contained therein." (Strauss and Corbin, 1998: 102).

During open coding interview transcripts (or other forms of data) are split into distinct parts (Cutcliffe 2000). Text is read with the following questions kept in mind; what is this piece of data about? What is it an example of?

Line by line open coding produces a number of categories. The labelling of data allows for the development of properties, which then form parts of the wider category. Glaser and Strauss (1967) provide an example in the study of dying patients. The category, “social loss of dying patients” contains the property of calculating social loss. Further still, another example is provided by Strauss and Corbin (1998) in their study of pain. Pain can form a category, the intensity of which might be one of its properties. Glaser and Strauss (1967) maintain that initial codes, properties and categories are not fixed, but can change in light of new data.

As a researcher starts to code and categorise data, they support this process by what Glaser and Strauss (1997) call ‘memoing.’ Memos are a researcher’s notes to themselves about thoughts, interpretations and ideas for the future direction of further data collection. Essentially, memos are theoretical notes about the data and the conceptual connections between categories (Glaser 1992, 2004). Memos are written along side emerging categories on field notes and form the basis of writing up theory.

3.5.2 Axial Coding

Axial coding (sometimes called theoretical coding) is the process of relating codes (categories and properties) to each other (Schreiber and Stern 2001). Axial coding was first introduced by Strauss (1987) and expanded upon by Strauss and Corbin (1998). Strauss and Corbin (1998) maintain that axial coding allows for an understanding of the context of data and it fits well with their preoccupation with validation criteria and their rigid systematic approach to theory development. Glaser (2004) has vehemently criticised the use of the axial coding approach, claiming that axial coding as part of the grounded theory proposed by Strauss and Corbin forces theory development rather than letting it emerge. It is within this particular area of coding that some of the main differences between Glaser’s model of grounded theory and the grounded theory developed by Strauss and Corbin can be seen. However, as Kendall (1999) believes, one does not need to view either approach as right or wrong; rather:

“The qualitative and grounded theory researcher can choose an approach, and that choice is based on the goal of the researcher’s study.” (Kendall, 1999: 5).

Axial coding is not mentioned at all within the original 1967 grounded theory text. However, the inclusion here of an overview of axial coding is justified, as I used axial coding during the data analysis phase of my study. Axial coding is about joining together and relating categories to each other. Strauss and Corbin (1998) put this succinctly:

“Axial coding is the act of relating categories to subcategories along the lines of their properties and dimensions. It looks at how categories crosscut and link” (Strauss and Corbin, 1998: 124).

During axial coding categories are related to each other to form complete explanations about data. As this coding procedure proceeds, patterns in the data become apparent.

3.5.3 Coding Paradigm

Although coding is about naming and developing categories, it is more than just merely labelling text. Coding should provide explanations about what is going on in order to uncover relationships between and among categories. To provide such explanations and in order to discover category relationships, Strauss (1987) and Strauss and Corbin (1998) maintain that when coding, especially when axial coding, researchers should use their ‘coding paradigm.’ The coding paradigm is a way of analysing data, during axial coding, and it consists of coding for the following:

- Conditions
- Actions and Interactions
- Consequences

I used Strauss and Corbin’s (1998) coding paradigm when analysing and coding my data, especially when I was involved in axial and selective coding. I was therefore able to answer questions related to:

- The *Conditions* under which post-MI CR attendance occurred, identifying those *conditions*, which either inhibited or facilitated attendance.

- The *actions* and *interactions* the post-MI women engaged in whilst attending CR
- The *consequences* of attending for post-MI CR

My use of the paradigm model is discussed in greater detail later, in the chapter dealing with data analysis (see pages 115-148).

3.5.4 Selective Coding

Selective coding involves integrating and refining the theory. Selective coding means to cease open coding and limit coding to only those variables that relate to the core category. As Strauss (1987) states:

“Selective coding pertains to coding systematically and concerted for the core category. The other codes become subservient to the key code under focus.” (Strauss, 1987: 33).

3.6 Constant Comparative Analysis

During the collecting and analysis (coding) of data, Glaser and Strauss (1967) describe a set of systematic procedures that they call the constant comparative method. The generation of theory from the data of social research can be achieved through the process of comparative analysis. This means that new data is constantly compared with previously obtained data. This not only informs the development of categories but points the way for the researcher to find new and relevant data. By constantly comparing data, the researcher is able to progressively focus the research as the data become clearer. The evolving theory that emerges from constant comparisons informs the researcher as to where to obtain further data. This process is known as theoretical sampling.

3.7 Theoretical Sampling

Glaser (2004) defines theoretical sampling as:

“The process of data collection for generating theory whereby the analyst jointly collects, codes and analyses the data and decides what data to collect next and where to find them, in order to develop the theory as it emerges.” (Glaser, 2004: 14).

The purpose of theoretical sampling, therefore, is to allow the researcher to go to places and meet certain people who will maximize opportunities to discover

variations among properties and categories and to allow for saturation of categories. Saturation meaning the point at which no new data emerge. Theoretical sampling becomes cumulative, with each participant sampled informing category development and directing the researcher to potential future participants.

Pulling this all together means that grounded theory progresses in systematic manner with many of the processes occurring simultaneously. Thus, with no preconceived ideas the researcher enters the research situation and immediately starts to take note of what is happening. After this initial data collection phase the researcher will then re-enter the research situation keeping in mind what was gathered from the first. Each subsequent collection of data is then compared with previous data sets and later compared with any emergent theory. Through theoretical sampling this process is continued until the researcher is confident that saturation of categories has been achieved. It is anticipated that this process will be more fully explained during both the data collection and data analysis section, below (see pages 66-67, 90-161).

According to McCann and Clarke (2003) two types of theory can be developed using grounded theory: formal or substantive. Formal theories are more general than substantive theories and deal with a conceptual area of enquiry, such as experience (Morse 2001), professionalism and power relations within society. Substantive theories, which are the most common type of theories that are derived from grounded theory (Morse 1994), concentrate on specific social processes and are developed for narrower empirical areas of study.

The use of grounded theory and, indeed, grounded theory's epistemological foundation, symbolic interactionism, was well suited for my study. Exploring and investigating the decision making-processes and the decisions made by women about their CR programmes meant that a grounded theory research methodology was appropriate. As will be shown during the analysis of the collected data, the women in my study held certain beliefs about CR and their rehabilitation programmes took on significant symbolic meanings, especially as their programmes of rehabilitation progressed. However, since 1967, Glaser and Strauss have diverged down two different methodological pathways. These two original authors of grounded theory have diversified significantly over

fundamental aspects of what grounded theory is and how it should be undertaken.

Much of the recent debate about grounded theory has focused upon the epistemological basis of grounded theory; does it allow for an exploration of the 'real world' or does its origins within symbolic interactionism limit it to investigations of social construction? In terms of the justification of the particular type of grounded theory that I employed, it is necessary to explore this split that occurred between Glaser and Strauss, as the grounded theory research method of each is different.

3.8 Glaser vs. Strauss

According to Schreiber and Stern (2001) the biggest differences between Glaser and Strauss (and later Strauss and Corbin) can be seen within the debate about whether theory should be emergent or whether theory should be forced.

The grounded theory of Glaser suggests and emphasises the use of induction and emergence in the development of theory, whereas Strauss (1987) and later Strauss and Corbin (1998) maintain that the researcher should consider any number of possible contingencies that might explain or relate to collected data. Glaser saw this approach to grounded theory (sometimes referred to as the 'best-fit' approach) as a significant departure from the original idea(s) of grounded theory. Indeed, in a letter to Strauss in 1992, Glaser (1992) stated that Strauss and Corbin's book, *Basics of Qualitative Research*:

"Distorts and misconceives grounded theory, while engaging in a gross neglect of 90% of its important ideas... To repeat it another way, you have wrote (sic) a whole different method, so why call it grounded theory"? (Glaser, 1992: 2).

Glaser's criticisms of the 'grounded theory' according to Strauss and Corbin concerns the use of what Glaser termed their 'forced' and 'preconceived' method. As Glaser (1992) states:

"Strauss and Corbin's research method cannot produce a grounded theory. It produces a forced, preconceived, full conceptual description, which is fine, but it is not grounded theory." (Glaser, 1992: 4).

Glaser is very much concerned with allowing theory to emerge, rather than forcing data into preconceived ideas that would distort any theory developed. The concern that Glaser has for the Straussian grounded theory is that by using Strauss' model theory can always be developed, but how well that theory can be considered grounded in the data is questionable.

The differences that can be seen between Glaser and Strauss can, in part, be explained by their different backgrounds. Glaser's underlying analytic methodology is drawn from procedures embedded in the quantitative research tradition. Glaser's grounded theory assumes the reality of an external world, takes for granted a neutral observer and views categories as derived and emergent from data. Certainly, when one acknowledges the influences on Glaser of Merton (1968) and Lazarsfeld (1993) one can appreciate where the positivist roots of Glaserian grounded theory came from. Strauss, on the other hand, was much more influenced by interactionists such as Mead (1992) and Blumer (1986). As such, Straussian grounded theory, in the words of Charmaz (2000):

"Recognizes that the viewer creates the data and ensuing analysis through interaction with the viewed" (Charmaz, 2000: 523).

Straussian grounded theory is, therefore, much more embedded within the constructionist paradigm than Glaser's approach. This split has lead more recent authors, Clarke (2005) and Eaves (2001), for example, to distinguish between what can be considered objectivist and constructivist concepts of the Grounded Theory research method.

The problem facing the qualitative researcher wishing to use a grounded theory research method, therefore, is which method/approach to choose. Does one opt for the objectivist/positivist grounded theory of Glaser, or the constructionist informed approach of Strauss? This is a fundamentally important question, for throughout the entire grounded theory research process, the grounded theory methods of Glaser and Strauss are different.

Perhaps one should start with the research question; that is to say, the research question should focus the researcher and assist in the choosing of the

most appropriate research method. However, when considering which grounded theory method to use, Glaser (1992) is positive:

“Choosing a research question before hand forces the data and does not allow the problem to emerge. Once grounded theory is chosen, the ‘question’ is moot.” (Glaser, 1992: 7).

Given that my research question about women and CR programmes had been formulated before the commencement of the research, this would seem to violate Glaser’s view of grounded theory. Indeed, Strauss and Corbin (1998) maintain that rather than forcing data to emerge an important aspect of the research question is the setting of boundaries around what is to be studied. This will be further explored, later on in this chapter, when issues surrounding what Blumer (1986) called ‘sensitizing concepts’ will be discussed (see pages 71-72).

Perhaps, then, the fact that my research question pre-existed the start of the research meant that this, in itself, demanded that I use a Straussian approach. Still further, as will be seen during data analysis, the epistemological basis of Straussian grounded theory best suited a study that sought to explore the process of women’s decision making with regards to their CR programmes. This is especially true when one acknowledges that Strauss and Corbin (1998) believe that a research question should allow for flexibility in order to explore social process problems in-depth.

Given the pre-existence of a research question and given the aims of my research study the most appropriate grounded theory approach for me to use was that expounded by Strauss and Corbin (1997, 1998). However, an even more significant justification for the use of the Straussian grounded theory method was that it seems to be much more flexible when, during the data collection and data analysis phases of a research project, it is married with social theories such as feminism.

Feminism, like most other social theories, is a complex, abstract theoretical framework which, whilst focussing upon women and gender equality, concerns itself with social patterns and processes (Wuest 1995). Very early on in the research process, it became clear to me that I would need to access feminist literature in order for it to inform, qualify and make sense of the data that I was

obtaining. I therefore decided to inform my study with feminist literature and adopt a feminist perspective. Specifically, feminist literature was accessed for the following reasons:

- Feminist research aims to address gender inequalities. Given the gender inequalities that exist in cardiovascular health care a feminist perspective allowed for an exploration of these
- My sample was made up entirely of women. A feminist perspective 'gave-voice' to the sample and facilitated the construction of theory which focused upon women
- The adoption of a feminist perspective assisted me (a male researcher) to understand the data that I had collected

For Glaser, such a combination of grounded theory with another qualitative research approach or framework amounts to an erosion of the grounded theory method:

"The mixing of qualitative methods with grounded theory methodologies has the effect of downgrading and eroding the grounded theory goal of conceptual theory." (Glaser, 2004: 2).

However, given that the foundations of Strauss and Corbin's (1998) approach is embedded in symbolic interactionism and given that symbolic interactionism is a useful approach to use in the study of women, the research methodology employed was that of grounded theory based upon that of Strauss and Corbin (1998).

As an inductive, theory discovery methodology, the Straussian based grounded theory method allowed me to develop a theoretical account of the general features of factors that affected women's continued attendance at CR programmes while simultaneously grounding the account in empirical observations and textual data. I suggest, therefore, that the combination of a Straussian symbolic interactionist grounded theory with a feminist framework was the most appropriate way in which to investigate factors that affected my participant's continued attendance at post-MI CR programmes.

As already mentioned, the use of a Straussian grounded theory method was an appropriate research methodology to use. The use of a feminist framework, however, needs further exploration and justification.

3.9 Feminism

Whilst writing this doctoral thesis, I was astonished at the number of different definitions of the word 'feminism.' According to Ramazanoglu and Holland (2004) any definition of feminism can be contested. This lack of a coherent / universally agreed upon definition of feminism, according to Beasley (1999) occurs because the term feminism defies simple explanation. Further, Beasley (1999) continues, the complexity and diversity of feminism has continued to erect difficulties in the definition of it as a phenomenon. However, something that all definitions of feminism have in common are the notions of emancipation, empowerment and to giving voice to women (Reinharz 1992). Indeed, Mason (2002) states that:

"Feminism can only be justified where gender relations are unjust / oppressive and people are able to choose to change this." (Mason, 2002: 7).

Feminism covers a diversity of beliefs, practices and politics with these overlapping and intersecting with each other. According to Beasley (1999) by the end of the 19th century, feminism had come to mean the advocacy of women's rights and the end to male dominance within the fields of science, politics and industry. Thus, whatever feminism is, it is largely concerned with the experiences of women in terms of their social, political, and economic inequalities. Ramazanoglu and Holland (2004) maintain that:

"Feminism is both diverse and decentred. There is no political centre to provide an authoritative definition of common goals and strategies for the liberation. So there is no ruling on what does not or does constitute feminist methodology." (Ramazanoglu and Holland, 2004: 7).

This lack of an 'authoritative definition' was somewhat advantageous for me when considering my methodological choice for this research study; there exists no reason not to do feminist-based grounded theory research.

3.10 Feminist Methodology

There is no single feminist way to do research. Indeed, there is little methodological elitism or definition of methodological correctness in feminist research. Rather, there is a lot of individual creativity and variety. This stems, partly, from the problems of defining exactly what feminism is, as discussed above. By being openly politically committed to changing the status of women, Ramazanoglu and Holland (2004) claim that feminists are charged with failing the test of producing generally valid, scientific, unbiased and authoritative knowledge. Another criticism of feminism is that feminists have ignored and underplayed factors such as racism, nationalism and ablebodiedism as reasons other than patriarchal power and/or sexuality as reasons for women's oppression (Ramazanoglu and Holland 2004). For some radical feminists the only explanation considered for women's oppression is that of male dominance and they ignore the complex relationship between other social processes. Stronger criticisms levied again feminist methodology are those put forward by Nicholson (1989), Hekman (2000) and Ramazanoglu and Holland (2004). These claim that post structural and postmodernist thought abandon any notion of feminist (indeed, any) methodology as able to produce knowledge that describes reality. That is to say, these authors question any approach's claim to be able to discover reality.

Beasley (1999) maintains that there is no sure definition of what makes feminist research 'feminist.' Although feminist researchers usually employ a specific theory to structure their work and explore issues such as gender inequalities and power relations, it is not always necessary to make these the *focus* of a research study. Rather, Ramazanoglu and Holland (2004) maintain, what is important when doing feminist research is to understand the experiences of women and give voice to those experiences. If this then, subsequently, impacts upon wider issues such as gender inequalities then all the better, but the focus should be upon exploring women's lives.

My study did focus upon the MI and CR experiences of a group of women and feminist theory was employed during my study's coding, analysis and discussion phases. As I shall discuss, later, in chapters four and five, feminist theories of Self helped to inform and shape my grounded theory once data had started to emerge and this was especially so during selective coding. I

explored some of the feminist theories on Self and how different feminists have defined the concept of Self. Exploring the experiences of my sample provided me with an understanding of their Self and of how the process of restoring the Self is, in part, reliant upon significant others. Further, the women in my study partially defined themselves in relation to the social roles they performed; mother, wife, house keeper / carer, for example, and so an exploration on how social roles can shape the Self was also undertaken and this, again, was informed by feminist theory.

3.10.1 Feminist Grounded Theory

A number of recent authors attest the usefulness of feminist grounded theory when studying complex issues related to women, for example, Keddy et al (1996) and Kushner and Morrow (2003). Along with the need for a feminist approach to help me make sense of the data that I obtained, other, much more significant, reasons emerged that necessitated the use of a feminist framework under which this grounded theory study was undertaken. Firstly, Roberts (1997) maintains that there has been very little basic theoretical work that takes account of women or of how the research process is influenced by or affects women in sociological research. Given that the focus of this study was women, a feminist perspective was required to help inform, shape and guide the research process. More significantly, Roberts (1997) asserts that sociological text-books that dictate how to research, question and interview women have been (some would say still are) based upon a masculine view of social reality, which, according to Roberts (1997):

"Is fundamentally at odds with the viewpoints of women as social actors." (Robert, 1997: 2).

Although there are many ways in which to collect data in qualitative research, the primary ways in grounded theory are by interviews and observations. The problems, however, inherent in a male researcher (me) interviewing or observing women, using criteria based upon a traditionally masculine sociological world-view meant that a particular framework was needed in order to address what Morgan (1997) calls 'the dominant male rationality of sociology.' Feminists have for a long time recognised the inherent bias in modern sociological research and the traditional way in which sociology has

operated within a patriarchal paradigm. Feminist sociologists such as Ann Oakley and Margaret Mead assert that sociology, like society in general, ignores women and does not look at social interaction from the viewpoint of women (Roberts 1997). Thus, there existed the very real potential of me 'missing' significant data or mis-interpreting important data because of the pre-existing bias of the chosen research design and methodology. To address this problem and to place the women, the research participants, at the centre of the study a feminist perspective was incorporated into the study. However, using feminism to underpin this grounded theory study of women and CR attendance had a number of implications. For example, Brayton (1997) maintains that, methodologically, feminist research differs from traditional research in a number of significant ways:

- Its starting point and focus is women's experiences
- It actively seeks to remove the power imbalance between researcher and subject
- It is be politically motivated and has a major role in changing social inequality

Therefore, right from the outset, notions of bias / neutrality in favour of women had to be kept in mind. Despite Strauss and Corbin's (1998) grounded theory model being embedded in symbolic interactionism, this does not, necessarily, mean that neutrality on the part of the researcher should be totally abandoned. Indeed, whilst Strauss and Corbin (1998) emphasise that it is not possible to be completely free of bias, it is still considered (in the grounded theory sense) good practice to step back from a research situation and recognise bias whenever it starts to intrude into data analysis.

This does not fit with what Reinharz (1992) has to say about feminist research:

"For many feminists, research is obliged to contribute to social change through consciousness-raising or specific policy recommendations." (Reinharz, 1992: 251).

As has been acknowledged by Schreiber and Stern (2001) tensions between grounded theory and feminist theory originate because of the different goals

and priorities which drive each approach. The goal of grounded theory is the discovery of theory from data systematically obtained from social research. The goal(s) of feminist research are the empowerment and emancipation of women. Feminist research is often driven by the demands of the emancipation of women. Whilst grounded theories, according to Strauss (1987) and Glaser (2004) are the starting point of change, there is no inherent requirement for grounded theory studies to have any emancipatory influence on research participants.

Despite these, seemingly, different focuses, Wuest (1995) asserts that the justification for combining grounded theory with feminist theory is based on epistemological, ontological and methodological congruence. Indeed, the combination of grounded theory with feminism as a research method is not new and has yielded significant research. For example, Keddy et al (1996) and Wuest and Merritt-Gray (2001) have all used feminist grounded theory as a research method. According to Wuest and Merritt-Gray (2001) when the grounded theory research method is informed by feminism, the researcher assimilates the basic tenets of feminist research into the research process. These being, respect for research participants, reflexivity and the avoidance of oppression.

Without pre-empting the forthcoming chapters that will discuss analysis of the data and the study's results, it has to be said, here, that the combination of grounded theory with feminist theory did allow me to develop a theoretically grounded account of the general features of factors that affected women's continued attendance to post-MI CR programmes. Indeed, the theory development concerning the empowering and Self-restorative effects of CR were significantly based upon and aided by the feminist framework and the feminist literature that I read once my findings started to emerge.

3.11 Criticisms of Grounded Theory

Despite its widespread use in sociological and health care research, grounded theory is not without its problems and the approach does have a number of critics. For example, Charmaz (2000), McCann and Clark (2003) and Charmaz (2006) maintain that the main criticisms of grounded theory are that its epistemological assumptions have not been clearly explicated and its links with

existing social theory have decreased over recent years. Others, notably Silverman (2005), Benoliel (1996) and Clarke (2005) assert that the recruitment of study participants and the data collection methods are often poorly undertaken in grounded theory research, usually, they argue, because the grounded theory process is complex. Priest et al (2002) assert that more often than not, the grounded theory method results in the generation of empty categories that have limited value in theory generation. Further, many grounded theory studies do not actually produce a 'grounded theory' (Silverman 2005). As Hutchinson (1988) maintains, the notion that the researcher has to seemingly be both subjective and objective when undertaking grounded theory research often leads to confusion and complications. However, a much more substantive criticism has been identified by Griffin (1997). He questions the assumptions of symbolic interactionism and the philosophical underpinning of grounded theory, especially that espoused by Strauss and Corbin. Whereas the social interactionist believes that meaning arises out of the interaction between people, Griffin (1997) states that a contradictory point of view asserts that meaning is already established in a person's psychological make-up, are meanings the result of interaction, or is the meaning just an expression of a pre-existing psychology?

Perhaps the biggest critic of grounded theory is Goldthorpe (2000) who maintains that grounded theory is limited in its ability to produce relevant and useful theory. Goldthorpe (2000) maintains that grounded theory falsifies reality, that what is produced when using grounded theory is little more than mere 'fantasy' (Goldthorpe 2000). For Goldthorpe (2000), grounded theory is too subjective and is often too *ad hoc*. Further, he maintains that the model put forward by Strauss forces data in to preconceived ideas. This is a specific reference to Strauss' paradigm model. Goldthorpe (2000) particularly attacks grounded theory's commitment to conceptualisation, asserting that all this really means is fantasising and gross imagination and that it is difficult to differentiate between imagination and conceptualisation. Because grounded theory embraces the ideas of continuously modifying hypotheses it has also been accused of extreme inductivism and this, together with its commitment to conceptualisation, means that the entire method is often attacked for not producing 'testable' hypotheses or theory.

Some of Goldthorpe's (2000) criticisms are not new. Glaser's (1992) criticisms of Strauss' model and of axial coding, for example, are well known and pose serious challenges to anyone attempting to undertake grounded theory. Glaser (2004) has also attacked both the ontological and epistemological basis of Straussian grounded theory (that of constructivism) asserting that constructivism is biased and limited when attempting to produce theories about the world.

The criticisms of those such as Goldthorpe and Glaser are themselves problematic. Both Goldthorpe and Glaser come from a positivist background and have criticised Straussian grounded theory from this scientific perspective. It is the case that if critiqued using traditional scientific formula then Straussian grounded theory does appear to be problematic. But this is to miss the point; one cannot critique symbolic interactionist informed constructivist grounded theory using the scientific approach (Strauss 1987). Constructivism and traditional science are not compatible and one can no more critique a scientifically conducted Randomised Control Trial (RCT) using constructivism any more than one can critique social constructivism with the scientific approach. Straussian grounded theory is best used where there is little known about a topic. This often means that initial ideas and hypotheses will change. This certainly happened in my study, where I moved from an initial exploration of CR discontinuation to an exploration of CR continuation. Further, in answering criticisms of conceptualisation being mere fantasy, constructivists, such as Strauss, would argue that conceptualising is abstracting from the data that one obtains. In grounded theory all is data, but often involves transcribed interview data. It is from this data that one starts to abstract and conceptualise. Each piece of meaningfully interpreted data is given a descriptive code which represents, at a higher level, some phenomenon. This is *not* fantasy. It *is* interpretation, but the interpretation comes from data that one has obtained. Fantasy is an unreal mental image that bears no relation to anything other than the person doing the fantasising. Grounded theorists, even Straussain grounded theorists, need data to work with, the fantasist does not and to claim that they are both the same is incorrect and misleading (Dey 2002).

As for the criticism that grounded theory produces non-testable theory this, I believe, is not true. When using the grounded theory method theory is allowed

to change in order for it to develop. Theory must be formulated *before* it can be tested. The process is about developing theory which can, in principle, be tested at a later date. Thus, Goldthorpe (2000) seems to misunderstand the differences between the *process* of theory development with that of the final developed theory.

Other criticisms of grounded theory have focused upon Strauss and his process of axial coding and paradigm model. Because of his commitment to symbolic interactionism and because of the interpretive / constructive nature of his grounded theory, Strauss' use of the terms 'cause' and 'causal' as part of his paradigm model is problematic. The terms 'cause' and 'causal' are laden with scientific undertones and imply a positivist ontology, which would appear to contradict that of Strauss. Causality implies a cause and effect relationship between one variable or event and another and the traditional scientific approach uses this principle to predict how variables may or may not behave. A constructivist theory could not claim to 'predict' behaviour, but the use of words such as 'casual' does imply this.

So what did Strauss and, later on, Strauss and Corbin mean by the use of this word? Sometimes they are rather vague in their use of the term causal:

"Another point that can be made about conditions is that explanations require assumptions about the relevance of causality... What these assumptions are and just what the 'nature' of causality is have been much debated by philosophers... Different scientific disciplines and specialities differ considerably in what they consider causality... (Strauss and Corbin, 1998: 133).

In this passage they are not clear on how they use, or justify the use of, the term 'causal'. Many different scientific traditions use the word in the same way; to predict and understand the external and materialistic world. But this is not how Strauss and Corbin use it. They maintain that they do not use the terms 'cause' and 'causal' in the traditional scientific 'cause and effect' way. Rather, they use these words to indicate those 'factors' that *influence* behaviour and lead to the occurrence of some phenomenon. Rather than implying that one primary cause can lead to only one effect, Strauss and Corbin (1998) use

'cause' to mean any factor or phenomena that can influence people or situations and affect how they behave and act:

"Our concern, as analysts, is not so much with causality as with conditions of various types and the way in which they crisscross to create events leading to actions/interactions. When people act, we want to know why, how come, and to what situations, problems, or issues they are responding." (Strauss and Corbin 1998, 133).

This begs the question, why, if they are interested in influencing factors, do they use the term causal factors? Instead of causal conditions, why not use the term influential conditions? Strauss and Corbin answer this by implying that the term 'influencing' alludes to those factors influencing *all* behaviour. They wanted to use the term 'casual' to identify those factors that *initially* affect behaviour. What initiates behaviour? What initiates how people behave or interact? What condition(s) need to be present *before* certain behaviours are seen? This is what they mean by causal; the initial conditions or sets of happenings that influence behaviour and other phenomena in the first instance.

Another other point about the term 'causal' that Strauss and Corbin (1998) discuss is that this term is only one aspect of the whole paradigm coding process. On their own, causal conditions would be of little value in theory development. Joined together with the other elements of the paradigm model, however, they form part of a transactional process that helps to develop interactive theories. Therefore, Strauss and Corbin (1998) stress that causal conditions should be seen as forming part of a larger interpretative and constructive process-developing method.

In my developed grounded theory model, discussed later in chapters four and five, I talk about the 'causal' conditions influencing initial attendance to CR programmes and I do this because I employed the model as developed by Strauss. It might seem that my theoretical model implies that I am saying *only* an MI will 'cause' a person / women to attend for CR and this is not so. Whilst having an MI may (or may not) initiate CR attendance, many other factors can facilitate initial CR attendance too and these can be considered to be *initiating conditions*, rather than causal conditions. While I acknowledge the problem of the term 'causal' I use this term in the same way that Strauss and Corbin use it,

to mean those factors that *initially* facilitated and led to CR attendance, namely an MI. What influenced *continued* post-MI CR attendance lies at the heart of my developed grounded theory and I will discuss this later (pages 197-188).

Many of the criticisms of grounded theory are based upon the traditional scientific ontology of positivism. Viewed in this way grounded theory (of both Strauss *and* Glaser) is problematic. Indeed, although Glaserian grounded theory has its roots in positivism its still falls short of any traditional scientific critique: it is not scientific in the traditional sense. Viewed as a method committed to evolving and emerging interpretivist theory, however, grounded theory is a useful research approach to employ, especially where there is little data or knowledge known about a phenomenon. Despite acknowledging some of its criticisms and weaknesses a grounded theory research methodology based upon the approach of Strauss and Corbin (1998) was used for this research study.

3.12 Methodology Summary

As the focus of the research concerned an exploration of factors that affected women's decisions to attend / adhere to phase three post-MI CR programmes, a qualitative research design was appropriate. Specifically, the grounded theory research methodology suggested by Strauss and Corbin (1998) was employed. This method allowed for the collection and analysis of data for the purpose of generating an explanatory theory. Given that the focus of the research was women the combination of Strauss and Corbin's symbolic-interactionist-based grounded theory with a feminist framework was an appropriate way in which to investigate the stated research question. Thus, a Straussian / Feminist grounded theory research methodology was employed.

3.13 Ethical Considerations

Some ethicists maintain that all research has the possibility of inducing harm and, potentially, can cause study participants physical or emotional discomfort (Beauchamp and Childress 2001).

The ethical implications of this study were considered in depth before the research began. Indeed, both the Multi-Regional Ethics Committee (MREC) and the Departmental Research Programmes Committee (DRPC) (of the Faculty of Health Sport and Science at the University of Glamorgan) demanded

evidence that I had had carefully considered the ethical implications of my study before they gave me permission to proceed.

As the research was limited to interviewing and observing post-MI women at CR the actual 'risk' of physical harm was considered low. However, I did have to satisfy the ethics committees that should any participant experience any discomfort during the interviews there were processes in place that could deal with these. Further, I also had to demonstrate that I had considered the following issues:

- Avoidance of Harm / Vulnerability
- Informed Consent
- Confidentiality

I made it clear to my study participants that their involvement in the study was entirely voluntary and that they were free not to take part and that if they did chose to take part and then decide to withdraw that they could do so without any questions being asked. All the participants who took part willingly signed an informed consent form (see Appendix Three).

When I met with CR staff (physiotherapists, nurses, managers) prior to the commencement of data collection, I was advised that I should make it explicitly clear to study participants that my research study and the interviews that I was going to conduct were not clinically or therapeutically connected to the participant's rehabilitation programme. Participants needed to be aware that I was only interested in collecting their thoughts, feelings and experiences about their CR and that I was not there to provide any advice about either their rehabilitation programme or any clinical / healthcare problems they might be experiencing. For the majority of women (n=24) the distinction between me as a PhD student and me as a registered nurse worked well and without complication. Participants had been were told that I was a qualified nurse, but that I was undertaking a research project and was not involved in their CR. However, on one occasion one participant had clearly misunderstood certain issues that had been discussed during her class that had preceded her interview with me. At the start of this particular interview the patient involved

started to ask me a number of questions about the relationship between exercise and heart function and the importance of physical exercise and of keeping active. Although I was (both professionally and educationally) able to answer these questions, this would have broken the agreement between me and the staff; that I would not become involved in patients' actual rehabilitation. Thus, I had to re-direct the participant back to her own rehabilitation professionals.

Another ethical problem that arose during the study was that of confidentiality. Confidentiality lies at the heart of social and medical research (Beauchamp and Childress 2001). Participants had been told that any information disclosed to me would be treated in strict confidence. They were informed that once their interview had been written up and transcribed the tape of their interview would be destroyed.¹ On one occasion during an interview a participant confided in me that she was not: "...*exactly complying*" with her doctor's instructions. In fact, it transpired that this particular patient was not taking some of her prescribed medications and had not (despite telling her rehabilitation nurse that she had) given up smoking. In this particular case, I did assert my duty as a health professional and I did advise the participant that it was in her best interest to follow her doctor's advice and give up smoking. However, I stopped short of informing staff about what had been disclosed to me.

Another ethical issue that arose was that of patient choice. An ethical stipulation imposed on the study by one of the hospital sites involved was that when interviewing the post-MI women, they had to be accompanied by a relative. My response to this had been to try and explain that this condition might hinder potential participant involvement. Indeed, there are certain methodological implications related to interviewing people in the presence of others. However, the research officer for this particular hospital was resolute in reasserting that when conducting interviews any interviewee had to be accompanied. In order to avoid the possibility of being denied access to the CR women attending this hospital I agreed to this condition. However, when I successfully enrolled participants from this particular hospital into the study they themselves were reluctant to be interviewed in the presence of somebody else, even if that

¹ In fact, what happened was that once interviews had been transcribed the tape was re-used for subsequent interviews. This practice is encouraged as it forces the researcher to transcribe and analyse data *before* undertaking further interviews.

person was a close family member or spouse. I then wrote to the Trust's research officer and informed him that participants themselves were not happy to be interviewed in the presence of others and I was then given permission to conduct interviews with participants on their own.

At all times I was mindful of the fact that the 25 women who took part in my study had voluntarily given their own time to be involved. As such, I was determined to act in a professional and courteous manner and I tried not to inconvenience them unnecessarily.

Ethical consideration also had to be given to the issue of research participant vulnerability. Although old age, in itself, does not necessarily make one vulnerable, I had to consider whether the age of the participants made them vulnerable in anyway. Acknowledging this potential vulnerability I made sure that participants were always given the opportunity *not* to take part and I always made sure that I informed them that they could have somebody accompany them, at interview, if they wished.

3.14 The Setting

I undertook my study within the physiotherapy departments of three hospitals in South Wales where post-MI CR classes are routinely undertaken. One hospital was a university hospital, the other two were regional district general hospitals.

Senior hospital and departmental managers were contacted and I sought their permission to approach both CR staff and potential patients. Prior to the commencement of the study, I had met with the CR staff at the three hospitals involved. This gave me the opportunity to explain fully what the study entailed and to answer questions put to me by the rehabilitation staff. I was also able to identify where interviews were going to be held and whether interview rooms were appropriately equipped and situated.

After participants had been approached and after they had agreed to take part in the study, they were interviewed within one of the three hospital departments after they had finished their class for that particular day. NHS Trust policy and procedural matters prevented me from conducting interviews in participant's homes.

Within each of the departments involved, I had arranged for a room to be made available for interviews. This meant that interviews were conducted in private and in as quiet an environment as possible. Because all research interviews were held after rehabilitation classes, part of the ethical conditions imposed upon the study stated that trained members of the rehabilitation staff had to be with 'easy reach' should a participant become unwell during an interview. Thus, although a designated room was available, it was sometimes the case that, due to the close proximity of rehabilitation staff, interviews were interrupted by background noise.

The observational data that was also collected was obtained at two of the three departments discussed above.

3.15 Interviewing in Hospitals

Ethical conditions imposed upon me by the University's Departmental Research Programmes Committee (DRPC) and the Multi-centre Research Ethics Committee (MREC) stipulated that if interviews were going to be conducted face-to-face then these would need to be done within the hospital environment where appropriate support and assistance could be provided in the event of an emergency. This had implications for my study. For example, according to Zoppi and Epstien (2001) conducting interviews in a hospital environment can affect the flow and structure of what is said between interviewer and interviewee. Further, they suggest that interviews undertaken within the hospital setting may prevent study participants from fully disclosing issues that they might otherwise discuss elsewhere. Zoppi and Epstein (2001) state that:

"Patients who are also research participants seen on their own turf may behave more assertively and may be willing to share information or concerns they have not expressed in the hospital."
(Zoppi and Epstein, 2001: 369).

Others, however, claim that rather than inhibiting communication and discussion, hospital based interviews conducted by health care professionals can yield much enlightening information. Kleinman (1988) for example, demonstrated the unique knowledge that can emerge from patient / health professional interviews. Further, rather than inhibiting knowledge generation, hospital based interviews can yield specific data that might not have emerged if undertaken elsewhere.

Observations could only take place within the hospital setting as it was here that the sample was to be found taking part in their CR. Observing post-MI women participating in their CR classes enabled me to explore and understand the context of CR. Thus, the impact of the 'hospital environment' on the study and its data collection was considered both in terms of conducting interviews and the structured observations that were undertaken.

3.16 Sample

In grounded theory research, sampling is based on theoretically relevant constructs (Glaser 2002, Strauss and Corbin 1997). As this study aimed to explore factors that affected women's decisions to continue with their phase three post-MI CR, a sample of 25 women who were attending phase three post-MI CR classes was recruited.

Based upon the grounded theory method of Strauss and Corbin (1997, 1998) this doctoral study employed a two-part sampling strategy that consisted of initial sampling and theoretical sampling. Further, throughout the two sampling phases of the study new data were constantly compared with previously obtained data using the constant comparative method. This not only helped me to identify properties and develop categories but it also helped point the way for me to find new and relevant data.

When using a grounded theory research approach, where one aims to generate a theory and develop a wider understanding of social processes, the 'representativeness' of the sample is of much less importance than in quantitative research approaches (Gilbert 2005). Instead, according to Robson (2002), when using a qualitative research approach a sample is built-up which enables the researcher to satisfy his/her specific needs in a project. Therefore, a focused, or purposive, sample is obtained. Mason (2002) defines purposive sampling as:

"Selecting participants to study on the basis of their relevance to your research questions." (Mason, 2002: 124).

Once data collection has started the sampling process moves onto theoretical sampling. This sampling technique was originally conceived by Glaser and Strauss in 1967 and later developed by Strauss and Corbin (1998). Theoretical

sampling is central to (Straussian) grounded theory research and is defined by Strauss and Corbin (1998) as:

“Data gathering driven by concepts derived from the evolving theory and based on the concept of “making comparisons,” whose purpose is to go to places, people, or events that will maximise opportunities to discover variations among concepts and to densify categories in terms of their properties and dimensions.” (Strauss and Corbin, 1998: 201).

Thus, within grounded theory research, rather than sticking to a rigid sampling technique, study participants are theoretically chosen in light of initial data analysis and any emerging properties, concepts and theory (Strauss and Corbin 1998). Sampling, therefore, evolves as a project progresses. This theoretical sampling continues until category / data saturation is achieved (Strauss and Corbin 1998).

Theoretical sampling is about constructing a sample which, according to Mason (2002):

“Is meaningful theoretically and empirically, because it builds in certain characteristics or criteria which help to develop and test your theory or your argument.” (Mason, 2002: 124).

Due to my study's aim, an initial purposive sample of three post-MI CR women attendees was sought. Once data collection had begun it was the initial interview data and, later on, observational data which dictated the subsequent sampling technique and subsequent participant selection. This was continued until I had satisfied myself that data saturation had been achieved. As will be discussed later data saturation was achieved after having obtained a total sample of 25 (n=25) post-MI CR women.

Within grounded theory, the processes of purposive and theoretical sampling is so closely linked with both data collection and open, axial and selective coding that in-depth discussions of the sampling technique employed will be given both here and in the data collection section, later. This is because within grounded theory research data collection, data analysis and sampling occur concurrently (Strauss and Corbin 1997, Strauss and Corbin 1998).

This study employed a two-part sampling strategy based upon the specific sampling technique developed by Strauss and Corbin (1998). Sampling considerations required in the grounded theory as expounded by Strauss and Corbin (1998) include:

- Considering the group or persons to be studied
- Considering the types of data to be used within the study
- Initially, decisions regarding the number of sites and observations and/or interviews will depend on access, research goals and the researcher's aims. Later, these decisions will be modified according to the evolving theory
- Sampling should be directed by the logic of the three types of coding: open, axial and selective

For this study, the group under investigation was that of post-MI CR women and the types of data collected were interview and observational. As I will discuss, later on in this chapter, additional sampling was directed by both the evolving theory and the study's coding processes (see pages 63-66).

All members of the obtained sample had had a diagnosed myocardial infarction, were aged between 39-75 years and lived in South Wales. Six out of the 25 participants were in paid full-time employment with a wide range of professional backgrounds represented. In order to gain rich and relevant data, only women who had completed the majority of their CR programme (six-eight weeks) were approached about taking part in the study, as I felt that women who had only just started their CR would have little rehabilitation experience to bring with them to the interviews. Table 3.1, below, contains biographical data of my sample.

Age Range:	39-75 years
Diagnosis:	Confirmed MI
Stage in CR programme:	4-8 weeks post-MI
Marital Status:	Widows: 9 Single: 1 Married: 15
Employment Status:	Employed: 6 Retired: 7 Housewife: 12
Residency:	City of Cardiff 17 Welsh Valleys 8
Social Class:	I 0 II 3 III 4 IV 6 V 12

Table 3.1 Biographical Data

3.17 Tape-recording Interviews

Within grounded theory research, there is much debate about the process of recording interviews, particularly, whether interviews should be tape recorded or not. Glaser (1992) recommends against recording or taking notes during an interview. Rather, he recommends that a researcher should make detailed notes once the interview has finished. Of course, the problem with this is that note and memoing strategies then depend upon memory. Further, as Hansen and Kautz (2005) maintain, taking notes would involve an interpretation and a selection of what to write down and of what appears to be relevant to the interviewer. Relying upon note taking after conducting an interview might result in the researcher missing important data that were either not heard or subsequently forgotten. To avoid this problem, a number of researchers

advocate the tape recording of interviews. Kvale (1996), for example, maintains that the first requirement for transcribing a recorded interview is that it is recorded in the first place. Johnson and Adelstein (1991) assert that it is essential to tape record interviews so as to obtain verbatim records of what was said between interviewer and interviewee.

Given that I acknowledged the problem of remembering the content of interviews once completed and given that Strauss and Corbin (1998) recommend the practice of tape recording interviews, the interviews that I undertook in this study were tape recorded. I was aware that the presence of a tape-recorder might have inhibited discussion, especially when personal and sensitive issues were encountered. However, none of the women objected to having their interview recorded.

3.18 Initial Sampling

The initial sample for the study consisted of three post-MI CR women.² Right from the very start, these first three interviews yielded much data. Initial concepts and properties started to emerge and through the process of memoing and constant comparative analysis tentative categories were developed. According to Charmaz (2006):

“The criteria for initial sampling differ from those you invoke while theoretical sampling. Initial sampling in grounded theory is where you start, whereas theoretical sampling directs you where to go” (Charmaz, 2006: 100).

As Strauss and Corbin (1998) dictate, the aims of open coding are to discover, name and categorise phenomena according to their properties. Therefore, initial open-sampling should be open to all possibilities and the selection of the sample should be based upon a loose sampling criterion that allows for the inclusion of a wide range of potential study participants. Strauss and Corbin (1998) maintain that to ensure openness it is advantageous not to structure data gathering too tightly and they advise that the researcher must be patient whilst they wait for something significant to happen.

The inclusion criteria for the initial sample were: participants had to be female, to have had a diagnosed myocardial infarction and to have attended at least

² These three women were part of the 25 who made up the total sample.

four weeks of a structured post-MI CR programme at one of the three hospital sites that took part.

All post-MI CR women who were attending one of the three hospitals rehabilitation sites involved were initially approached by either a CR physiotherapist or CR nurse and were asked whether they would be interested in taking part in a research project. Information about the study was made available to them to read if requested (see Appendix Three). Information about those women who had agreed to take part was then sent to me and I then made contact with the participant asking her to sign an informed consent form, thus demonstrating willingness to take part. A mutually convenient time was agreed and then each research participant was interviewed (see below) by me about their CR programme. Interviews were taped recorded and lasted between 60-90 minutes.

Strauss and Corbin (1998) maintain that:

“Data collection should be followed immediately by analysis. Beginning researchers often are so enthusiastic about data collection that they rush out and do five or six interviews or observations before sitting down to analyse what they have. They quickly become overwhelmed by the sheer amount of analytic information that emerges” (Strauss and Corbin, 1998: 207).

Following the sampling strategy outlined by Strauss and Corbin (1998) I began to analyse and code initially collected interview data soon after it was obtained. This helped me to avoid the problems of being overwhelmed by the data and, more importantly, helped me avoid the error of not subsequently sampling on the basis of emerging concepts and categories. Indeed, 25 interviews and 10 observational sessions amounted to approximately two interviews and one observational session a month over the course of a year. This time period gave me ample time and opportunity to transcribe and code interviews and observational data before subsequent data collection took place.

The initial sample of the study consisted of three post-MI CR women. As to why only three women were chosen to make up the initial sample, the justification for this was that a total of three women was all that was needed for initial properties and categories to emerge. Strauss and Corbin (1998) maintain that once properties and categories start to emerge, the researcher should then

move on to theoretical sampling. The data obtained from these first three initial interviews were open coded. I also wrote memos in order to record my ideas and for me to develop the emergent concepts, categories and, later on, theory. According to Strauss and Corbin (1998) a memo is:

"A written record of analysis. Memoing should begin with initial analysis and continue throughout the research process." (Strauss and Corbin, 1998: 218).

Memo writing enabled me to make notes about what had emerged from the analysis of the first three interviews. Initially, any thoughts or ideas that I had were written down as memos. This helped me to develop ideas, structure my thoughts and subsequently helped me develop my grounded theory. Further, the process of writing memos guided me during my subsequent sampling. Indeed, as Charmaz (2006) states:

"Memo-writing leads directly to theoretical sampling. conducting theoretical sampling depends on having already identified a category." (Charmaz, 2006: 103).

Based upon the data obtained from the first three interviews I was able to (in light of emerging properties and categories) change, adjust and adapt subsequent interview questions and identify subsequent research participants using the theoretical sampling process.

3.19 Theoretical Sampling

Once data collection had begun and analysis of the first three interviews had been undertaken sampling was dictated by emerging concepts, properties and categories. The guiding principle of data collection during this theoretical sampling phase was about obtaining data that would help make sense of the properties and categories that had started to emerge and evolve. To help me achieve this, detailed memos were written (see Appendix Four). Each time an interview was completed it was written up verbatim, coded and then compared with previous interviews. Likewise, observational data were also collected, coded and compared. By comparing data I was able to explore emerging properties and categories and was able to adjust interview questions in light of any new data. Further, by comparing interview data and observational events I

was able to examine how properties and categories related to each other and explore variations between them. The following will serve as an example.

During the first three interviews participants were asked a series of questions related to their CR programme. Soon to emerge were properties that indicated that one of the reasons given by the three women as to why they decided to continue with their CR was that they claimed that by attending CR classes their self-confidence was improved.³ I made a series of memo notes about confidence, improved self-belief, determination and developed questions that dealt directly with these phenomena. I then took these developed questions with me to subsequent interviews. Based upon initial data, therefore, subsequent interview schedules were designed to explore the concept of 'confidence.'

As will be seen in the data analysis section, below (pages 108-188), a number of properties and their categories emerged from the coding and comparative analysis of the collected interview and observational data that was obtained during the course of this study.

A question often asked when undertaking grounded theory concerns for how long a researcher should continue to sample? Strauss and Corbin (1998) maintain that the rule is to sample until each emergent category has been saturated. Strauss and Corbin (1998:136) suggest that saturation has been achieved when:

- No new categories emerge
- Emergent categories are well developed in terms of their properties
- Relationships between categories have been fully developed

In my study, emergent category saturation was achieved after theoretically sampling 22 post-MI CR women. Thus, the entire study consisted of a sample of 25 post-MI women: three constituting the initial sample and 22 being sampled during theoretical sampling.

³ Whether or not confidence was actually improved is irrelevant. What was important was that the women *perceived* themselves to have made increases in their confidence.

3.20 Data Collection

During the study data were collected using two main methods: in-depth semi-structured interviews and by structured observations, with data collection taking place over a period of 12 months. Once the research participants had been identified and had agreed to take part, stages one and two of the data collection phase were undertaken.

Given the wide range of potential data collection methods available, when conducting a grounded theory study, a certain amount of justification is required to explain why interview and observational methods of data collection were chosen and then employed in the study.

3.21 Justifying the use of interviews

Within grounded theory research everything is considered to be potential data (Strauss and Corbin 1998). Although interviews are the classic way of obtaining data when using grounded theory, the grounded theorist can also use observations, written text and explorations of social settings to gather data. As Charmaz (2006:16) maintains, within grounded theory, *"All is data."* When using a grounded theory research approach everything a researcher learns about the research setting and research topic can serve as data; nothing is considered unworthy of analysis.

Despite these many different ways of collecting data as part of a grounded theory study, many grounded theorists view the interview as not only synonymous with the qualitative approach but also view the interview method as the principal way of collecting data. (Glaser and Strauss 1967, Chenitz and Swanson 1986, Strauss and Corbin 1998, Charmaz 2006). Further, the in-depth semi-structured interview method is also an appropriate data collection tool for use within feminist research projects, as it allows women to voice their own experiences (Reinharz 1992, Keddy 1996).

3.22 Interviews

Interviews involve verbal communication between a researcher and a research participant, but are not specific to qualitative research. As Silverman (2001) maintains, one can perform quantitative interviews, even though they tend to be most commonly used in qualitative research studies. However, the interview is one of the main data collection tools used in qualitative research. Much has

been written about the interview technique and how it is useful in qualitative research. One can use structured, unstructured or semi-structured interviews, but which type is employed will depend upon the research design and research question (Bryman 2001).

Within grounded theory research the in-depth semi-structured interview (sometimes referred to as the discursive or intensive interview) is the most commonly employed interview technique (Silverman 2005, Schreiber and Stern 2001). The epistemological basis of qualitative interviewing tends to be more constructivist than positivist and, as such, suits grounded theory (and especially Straussian grounded theory) well. Charmaz (2006) states:

"Both grounded theory methods and intensive interviewing are open-ended yet directed, shaped yet emergent and paced yet unrestricted." (Charmaz, 2006: 28).

It can be reasonably claimed that the interview is the principal method of data collection when using grounded theory. Indeed, Schreiber and Stern (2001) claim that narrative data that are collected via the interview method are essential in grounded theory. Further, there are a number of feminist researchers who claim that semi-structured interviewing maximizes discovery and descriptions of women's lives (Reinharz 1992, Roberts 1997, Ramazanoglu and Holland 2004).

Lofland and Lofland (1984) maintain that an interview is a directed conversation, with interviewing allowing for an in-depth exploration of a particular topic or experience. Kvale (1996) maintains that in an interview, the researcher listens to what people themselves tell about their lived world and hears them express their opinions and views.

Charmaz (1999) asserts that interviewers' questions ask a participant to describe and reflect upon his/her experiences in ways that seldom occur in everyday life. According to Graham (1984):

"The use of semi-structured interviews has become the principal means by which feminists have sought to achieve the active involvement of their respondents in the construction of data about their lives." (Graham, 1984: 18).

The use of interviews was not only appropriate but, in fact, necessary, as although one can conduct grounded theory research without undertaking interviews (see above) for the theoretical sampling and constant comparative methods to work, interviews are required (Strauss and Corbin 1998).

Interviews are used in qualitative research to access the experiences and personal perceptions of a study's participants, although this statement is arguably not quite as straightforward as it might seem because its interpretation is dependent on the theoretical and epistemological stance of the interviewer (Backman and Kyngas 1999). As Wimpenny and Gass (2000) maintain, meaning must be viewed within the social context in which something occurs. This is opposed to the 'objectifying' approach taken in studies developed from the natural sciences. The deductive nature of quantitative research is too rigorous to produce new, textually rich data and the preoccupation of quantitative researchers with statistical analysis does not lend itself to the production of new data or to understanding what lies behind social phenomena (Jackson 1998). The interview process was, therefore, a necessary, essential and appropriate part of the study.

According to Wimpenny and Gass (2000) it is not so much the way in which questions are asked during an interview, but the type of questions asked that is important in qualitative research. In their analysis of interviews used within qualitative research, these two authors compared how interviewing techniques differ between phenomenological research and grounded theory research. They argue that the methodology employed will dictate the questions that need to be asked. For example, is the interview guided by theory development or by personal descriptions?

This study employed a grounded theory design, which seeks to generate theory drawn from the data. It aimed to examine and explore factors that influenced women's decisions to attend post-MI CR programmes and, as such, the use of interviews was necessary.

The value of interview data lies both in its meanings and how meanings are constructed. The 'construction of meaning' process that can take place when using in-depth semi-structured interviews fits well with the grounded theory as expounded by Strauss and later Strauss and Corbin (1997, 1998). This is

because the grounded theory of Strauss and Corbin has its origins within symbolic interactionism which explores issues surrounding the social construction of reality. Further, the flexible nature of in-depth semi-structured interviews suits the flexibility of Straussian grounded theory.

3.22.1 Feminist Interviews

Feminist like Reinharz (1992) and Ramazanoglu and Holland (2004) find interviewing appealing for many reasons. For example, interviewing allows access to women's thoughts, experiences and beliefs. As Reinharz (1992) asserts:

"This is particularly important for the study of women because in this way learning from women is an antidote to centuries of ignoring women's ideas altogether or having men speak for women." (Reinharz, 1992: 19).

What made using the semi structured interview technique a particularly appropriate method of data collection in my study, especially considering the study's feminist perspective, relates to what Mishler (1986) refers to as the empowering nature of the semi-structured interview for participants. Empowering and empowerment are central facets of feminist research (Roberts 1997). Unlike rigidly structured interviews or survey questionnaires the semi-structured interview gives back some element of control to the participant allowing them to become an equal partner in the data gathering process. Mishler (1986) argues that in survey and other quantitative data collection methods the participant is passive and merely responds to questions put to them. Further, such an approach to data collection places 'control' firmly in the hands of the interviewer. As Gubrium and Holstein (2001) state when using quantitative data collection methods:

"...an important operating rule is that the interviewer does not provide answers or offer opinions and the respondent is encouraged to answer questions, not to ask them." (Gubrium and Holstein, 2001: 19).

Thus, within quantitative interviewing control rests with the interviewer. This separation between the researcher and respondent, claim certain feminists, is unhealthy, especially if the interviewer is male and the respondent is a woman

(Kvale 1996). However, when using the discourse, or in-depth semi-structured interview, Gubrium and Holstein (2001) claim that:

"...the in-depth interview is jointly constructed by interviewer and respondent. Both questions and responses are formulated in, developed through and shaped by the discourse between interviewer and respondent." (Gubrium and Holstein, 2001: 17).

When using the in-depth semi-structured interview method, interviewer and respondent work together to gather data that are rich, revealing and relevant. The collaborative nature of in-depth semi-structured interviews sits well with the aim of feminist research, the aim of making sense of women's lives and their experiences (Ramazanoglu and Holland 2004).

The in-depth semi-structured interview was, therefore, a particularly useful and appropriate method to use when undertaking a feminist grounded theory study as this interview method fits well with both Straussian grounded theory and feminist research.

3.23 Question Development

I had to consider a number of issues before I started interviewing research participants. Questions, for example, had to be suitably probing enough to achieve the study's aim. When considering what questions to ask during my interviews and when considering what to focus upon whilst observing CR classes, I was aware of what Blumer (1986) called 'sensitizing concepts.' Sensitizing concepts are the background assumptions and ideas that a researcher will bring with them to a research project. No researcher enters a research setting or poses a research question without some pre-existing ideas about what, how and who they are going to study and how they are going to study them. Blumer (1986) maintains that researchers often begin their research with certain interests and have some concepts already developed. As Charmaz (2006) states:

"These concepts give you initial ideas to pursue and sensitize you to ask particular kinds of questions about your topic. Grounded theorists use sensitizing concepts as tentative tools for developing their ideas." (Charmaz, 2006: 17).

I had considered, well before the commencement of my study, what factors might possibly influence or effect women's decisions to attend post-MI CR.

These ideas and concepts allowed me to formulate initial broad questions and they helped me highlight areas for me to focus on during initial interviews. These sensitizing concepts, therefore, provided me with a place from which to start. They gave me the opportunity to develop questions that, whilst focussing upon CR, attendance and heart disease, for example, were both flexible and open ended.

According to Giorgi (1999) the understanding that people have of their world and life situation and the meaning they have made of this is usually contained in the narratives or stories they tell. Through interviewing research participants, one can elicit these various types of data. There is much published research into how to interview and on how to interview qualitatively (Gubrium and Holstein 2001, Frey and Fontana 1998, Schutz 1999) and I made use of this substantial literature prior to the commencement of interviewing. Based upon open ended, flexible and facilitative questioning, questions such as:

“Tell me about your cardiac rehabilitation programme”

and:

“Why do you continue to attend your cardiac rehabilitation programme?”

were asked during the interviews. Such questions, according to Cohen et al (2000), ‘activate narrative construction’. This means indicating to participants that a narrative response is what is wanted and sought after; they should be encouraged to tell their story in the narrative style. Further, such questions help to orientate any subsequent conversation to a narrative focus. By asking the research participants to discuss and talk about their heart condition and their CR, in an open ended manner, it encouraged them to provide a narrative answer, which provided descriptions about their experiences, thought processes and beliefs.

Once data collection and data analysis had started, initial questions were altered, adjusted and re-focused in light of the emerging properties and categories. This process is essential in grounded theory as it allows the

researcher to focus in upon emergent properties and categories and helps in the development of theory (Strauss and Corbin 1998).

I acknowledge some of the numerous criticisms concerning both interviewing and using the interview method as a data collection tool. Some of these need to be examined. Talbot (2000), for example, maintains that any information one receives via an interview will depend upon how the interviewee interprets the questions that they are asked. How can an interviewer assure that respondents have interpreted their questioning correctly? Further, the interviewer's personality may also influence the kind of information obtained and influence the willingness of the interviewee to disclose any information (Burns and Grove 1999). Some writers have claimed that interviewer personality, perspective and background can all adversely affect the quality and credibility of research findings obtain via interviews (Peneff 1988). As early as 1954 Hyman demonstrated the effects of interviewer ideology and expectations on the responses of interviewees. Certain interviewer characteristics, such as race and gender are also thought to influence the behaviour and responses of respondents. The issue of interviewer gender was especially relevant in my study given that I was interviewing a sample of research participants consisting solely of women.

The implications of a male researcher interviewing a totally female sample will be discussed later, in my reflection chapter and section 3.24, below.

Other researchers claim that the interview is often seen as a way of constructing versions of reality rather than it being merely a method of obtaining data (Gubrium and Holstein 2001). Critics of the interview process claim that through the interview process 'reality' is constructed and, as such, it is too subjective to yield credible results. For example, LeCompte and Goetz (1982) claim that all research approaches, whether quantitative or qualitative, strive to obtain credible and authentic results. The interview method, they claim, because of its subjective nature, often fails to adhere to the canons of reliability and validity. This view is further supported by Platt (2001) who acknowledges the serious problem of the variation in answers elicited by interviews.

This 'construction of reality' can be affected by the participant, the interviewer, the setting in which interviews are undertaken, past and present experiences

and future expectations. Critics argue that any claims to reality the interview process has are illusory. However, many grounded theorists claim that the critics of the interview method who suggest that it is unreliable or that it produces invalid or incredible results fail to acknowledge that the focus of the qualitative interview is not about the production of replicable facts or scientific rigour (Punch 2005). Rather, the qualitative interview is about the joint construction of knowledge between interviewer and interviewee. This does not mean that qualitative interviews are a substandard data collection tool or that they are unable to yield credible or useful data. There may be justification in the claim that poorly undertaken interviews result in poor data, but that is a different criticism to suggesting that interviews *per se* result in invalid or worthless data. Undertaken correctly and appropriately the qualitative interview can produce much that is of value. One cannot apply the same level and type of validity and reliability to qualitative interviews as are applied to positivistic research methodologies. These issues were considered during the planning and execution of my study.

There were a number of other issues related to interviewing that I had to consider. For example, I had to consider the implications of a man interviewing a sample consisting exclusively of women. This was especially important, given the study's feminist framework, as many feminist writers have highlighted the issues of men interviewing women as an area for great consideration (Roberts 1997). Further, although two members of the total sample of 25 post-MI females were less than 40 years old, the majority of the other 23 participants were aged between 58 and 82 years old. Therefore, I had to consider the implications of interviewing older people.

3.24 Interviewing Women

According to Reinharz and Chase (2001) there are a number of issues to consider when interviewing women. Roberts (1997), for example, asserts that sociological text-books that dictate how to research, question and interview women are based upon a masculine view of social reality, which, according to Roberts (1997):

"Is fundamentally at odds with the viewpoints of women as social actors." (Roberts, 1997: 2).

As a man, it was necessary to consider some of the issues that related to me interviewing women. For example, according to Reinharz (1992), Roberts (1997) and Reinharz and Chase (2001) a person's social location and gender can shape their identity, perspective and experiences. They raise the question of whether the differences between interviewer and interviewee social location can adversely impact upon interview research. Further, they suggest that the situation of men interviewing women raises particular issues concerning interviewers' and interviewees' social locations, characteristics and gender.

In a study that investigated the affects of gender on the interview process, Padfield and Proctor (1996) found that when discussing certain subjects and topic areas, female interviewees were affected by the gender of the interviewer, volunteering certain information to female interviewers that they withheld from male interviewers. Although Padfield and Proctor (1996) discovered that women will talk openly and at length to men on a wide range of issues, they maintain that interviewer gender can affect the voluntary sharing of some personal information. However, they also found that when they explicitly asked women whether the gender of an interviewer affected their responses to questions, the issue of gender was not fixed, but shifted and was altered by other dynamics:

"If the interviewee perceives herself as skilled in dealing with men then that can counter the implied influence of "maleness." If the interviewer puts aside "maleness" (inappropriate features of masculinity such as arrogance, not listening etc) then women could respond." (Padfield and Proctor, 1996: 232).

The same authors suggest, therefore, that it is not gender *per se* that can affect how women respond in interviews, but adverse male type behaviour. Likewise, Trevino (1992) highlighted that only by downplaying his gender and desexualising his research project was he able to enrol women into his study about alcoholism in women. Women, for example, were unwilling to meet with Trevino (1992) in his office because they feared for their safety. Indeed, Gubrium and Holstein (2001) suggest that because gender can regulate space it can affect where interviews take place and that male researchers should consider this when interviewing women.

Certain elements of what is known as the 'feminist epistemic community'⁴ also raise a number of concerns about men interviewing women and according to Reinharz (1992) the feminist community is divided over the issues of men doing feminist research. Ramazanoglu and Holland (2004) maintain that:

"The critical question is not whether men or others can use feminist theory, be politically sympathetic to feminism's emancipatory impulse, or engage sensitively and reflexively with research subjects. The point is whether these researchers are in practice members of feminist epistemic communities."
(Ramazanoglu and Holland, 2004: 140).

Not being part of a feminist epistemic community raises questions about whether men are able to understand women, understand their sense of 'being a woman' and their experiences. Indeed, feminists such as Stanley and Wise (1983) claim that men cannot be feminists (and, therefore, cannot undertake feminist interviews) because they lack women's experience.

Daly (1973) supports this view, stating that men cannot understand women's experience:

"Male authors who are now claiming that they can write accurately 'about women' give away the level of their comprehension by the use of this expression. The new consciousness of women is not mere 'knowledge about' but an emotional-intellectual-volitional rebirth." (Daly, 1973: 200).

Others, however, disagree. Morgan (1997) questions the notion that men can neither understand women nor undertake feminist research. Connolly (1996) challenges the opinion that men cannot undertake feminist research and Beasley (1999) challenges the idea that men are positioned outside the identity and experience associated with women, which suggests they cannot partake of that which constitutes feminism.

Thus, despite the significant number of feminist writers who question the idea of 'male-feminists' and despite the epistemological problems inherent in men conducting feminist research/interviews, there is no definitive feminist or feminist-methodological reason why men cannot, in principle, interview women

⁴ An epistemic community can be defined as a network of knowledge-based experts or groups with an authoritative claim to a particular field of knowledge, expertise and/or enquiry.

as part of a feminist research project. Ramazanoglu and Holland (2004) claim that feminism should not assume that feminists are only women or that only women can undertake feminist research:

"If a feminist methodology has distinctive rules, a politically sympathetic man should be able to use them." (Ramazanoglu and Holland, 2004: 8).

Reinharz (1992) supports the view that men can, in principle, undertake and conduct feminist informed interviews and that it is not the case that feminist research is only successful if the research process results in 'sisterly bonds' between a female interviewer and a female interviewee:

"The feminist methodological literature cogently criticises the overdone and self-deceiving value-neutral stance of social science, but this critique should not lead to an unexamined assumption that a feminist research project is successful only if it creates sisterly bonds between researchers and participants." (Reinharz, 1992: 230).

Feminists may have criticised the male-dominated social scientific approach, but this does not mean that men cannot interview women or that a project with a male interviewer and female interviewees cannot produce valid feminist research.

Before starting my study, therefore, I had to carefully consider my gender and how it might have impacted upon the interviews I was to conduct. I paid careful attention to avoid what Padfield and Procter (1996) called 'inappropriate features of masculinity' and I worked hard to reduce what some feminists writers refer to as the hierarchy and inequalities inherent in conventional research relationships. Specifically, when interviewing the 25 research participants, I kept in mind a quote by Scholes (1987):

"I think no man should seek in any way to diminish the authority which the experience of women gives them in speaking about their experiences." (Scholes, 1987: 217).

3.25 The Interview Experience

Reinharz and Chase (2001) maintain that when interviewing women, researchers should acknowledge the impact of the interview on the women themselves:

“Although on the face of it this process (interviewing) is not a remarkable activity, it may turn out to be an extraordinary experience for some women interviewees. This is so because some women still feel powerless, without much to say.”(Reinharz and Chase, 2001: 225).

Reinharz and Chase (2001) claim that when an interviewer approaches a woman:

“...whose culture, religion, community, family, or work situation prescribes her silence in one way or another and says “I want to hear what you have to say,” the interviewer may be creating a relatively new social situation for that woman.” (Reinharz and Chase, 2001: 225).

Thus there is a possibility, according to Reinharz and Chase (2001), that when asking women, perhaps for the first time, to express their views in an open, friendly and uninterrupted situation that certain women may experience an epiphany. Some women find the interview experience both liberating and empowering and an interviewing researcher needs to be aware that, in such cases, what is said may reflect the liberating effect of the interview process rather than the woman's wider life experiences.

I was aware of the potential impact interviews might have on the women involved and whilst the term ‘epiphany’ might be too grand a term to use in this study it will be shown, later, that the women involved in my study did, by participating in the research process, experience intuitive realisations about their heart disease and the meaning of their CR. Others, notably Belenky et al (1986), have also suggested that women who have never had the opportunity to express themselves may not know what to do when given the chance and that such a situation demands skilful handling on the part of the interviewer.

3.26 Interviewing Older Women

Although two members of my sample were aged less than 40 years, the age range of the other 23 participants was between 58 and 75 years of age. Therefore, I had to consider some of the implications of interviewing older people.

Wenger (2001) argues that when interviewing older people researchers should avoid becoming pre-occupied with age and assuming that everything under

consideration is age related. Further, Wenger (2001) maintains that when interviewing older people consideration should be given to the fact that:

"Interviewing older persons should not be conceived as a one-size-fits-all set of procedures; rather it is a form of inquiry that should take into account the diverse subjects older persons are known to be." (Wenger, 2001: 260).

Indeed, to assume that older people have 'specific interview needs' just because of their age could be considered derogatory and stigmatizing. However, despite acknowledging that (in principle) interviewing the elderly is similar to interviewing those in other age groups, I did, whilst data collecting, become aware of a number of issues that related to the age of some participants. For example, in practical terms, some of the more elderly participants who took part in the study required hospital transportation that made arranging interviews after rehabilitation classes difficult. Ambulances could not be kept waiting just so that interviews could be conducted. In such cases, arrangements had to be made to reschedule interviews to a more convenient time. Once, during a pre-arranged interview, a participant complained of being tired and asked whether she could reschedule the interview, which, of course, I did without question.

Another challenge I faced was that of interviewing elderly participants who had some form of sensory impairment, especially hearing loss. To help facilitate the interview process in such cases, the literature suggests that interviewers should speak slowly, clearly and inform participants that they are willing to repeat questions as many times as necessary (Gubrium and Holstein 2001, Wenger 2001). Further, the environment is important when conducting interviews with people with sensory impairment. I had to ensure, therefore, that when I was conducting interviews these were undertaken in a well lit and spacious room. This, I suggest, facilitated the interview process and helped the flow of communication.

In terms of the impact that age had on the research, perhaps the most significant was that of widowhood. Because of their age, some participants lived alone after having lost their partners. The effects of the loss of a husband and, in some cases, other family members, on decisions to continue attending post-

MI CR will be discussed, in greater depth, in both the data analysis and discussion chapters, later (see pages 124-149, 216-217).

3.27 Interviewing Post-MI CR women

According to Schreiber and Stern (2001) when conducting feminist grounded theory research, one should avoid clumsy academic language that might confuse research participants and, therefore, hinder the data collection process. For example, the term 'heart attack' was used instead of 'myocardial infarction.' Further, Schreiber and Stern (2001) maintain that whilst the grounded theory process is guided by theoretical sampling and the constant comparative method, when conducting feminist grounded theory, the researcher must always pay particular attention to women's voices, experiences and stories.

Although theoretical sampling and the emergent theory did influence subsequent interviews during the second data collection phase, during the first stage of the data collection process, I had not collected any data that could have informed my initial interview questions. Thus, for the first three interviews I asked participants a number of questions, see table 3.2, below:

- Can you tell me about your life before you had your heart attack? (Here I was encouraging the participants to discuss their life prior to their MI)
- Can you take me through the day of your heart attack?
- How did your heart attack impact upon your everyday life afterwards?
- When were you told about cardiac rehabilitation classes?
- Were you told about what CR would entail?
- What influenced you to attend CR?
- How have you found your cardiac rehabilitation programme?
- Why have you continued with CR?
- Have you ever thought of giving it up?
- What do you think are the best aspects of the CR programme?
- Does the presence of male patients in the CR class bother you in any way?
- How would you sum up your CR experience?

Table 3.2 Questions asked at initial interviews

Although these questions were asked during the first data collection process, it must be stated that these questions were not always asked in the same order during each of the interviews. Sometimes, certain questions were left out, sometimes extra questions were added. Indeed, the interview process was very open-ended and flexible. If participants mentioned something that was of particular interest, then they were asked to expand upon it. It was very difficult, once the unstructured interview was underway, to control what was said or to influence what was said by the participant. As such, the above questions were really areas/topics for discussion, rather than strictly adhered to questions that had to be asked and answered. In accordance with Strauss's (1987) assertion that the emphasis in grounded theory research is about gaining first hand information, about phenomena, from suitable people, the interview process was about gaining the participants' perspective on their CR. According to Marshall and Roseman (1989):

"The participant's perspective on the social phenomenon of interest should unfold as the participant views it, not as the researcher views it." (Marshall and Roseman, 1989: 56).

Interviews were therefore undertaken with the sole intention of gaining information that would allow me to understand the phenomenon of why the women continued to attend post-MI CR.

3.28 Interview Setting

As mentioned above, to facilitate the interview process and to help overcome some of the issues related to interviewing older people interviews were conducted in a brightly lit and spacious room within close proximity to the physiotherapy department. Although some authors, notably Wenger (2001), have suggested that women can find it threatening to be alone in a room with an unknown male interviewer, I never experienced any reluctance on the part of the research participants to be interviewed. I was always professional and courteous, when I was conducting interviews, and made the interview process as relaxed as possible.

I experimented with using a table within the interview room. Some authors have claimed that the presence of a table can act as a barrier to effective communication between an interviewer and an interviewee (Kvale 1996). However, I noted that when I removed the table, some of the 25 participants seemed uneasy; they became (almost) anxious at the removal of what they had expected to be present in an 'interview' room and as part of the interview process. Atkinson and Silverman (1997) maintain that we live in what has become to be known as the 'interview-society' in which interviews are seen as central to making sense of our lives. Further, people have expectations about how interviews should be conducted and about how interviewer and interviewees should behave. As such, when I was conducting interviews, I had to balance professionalism and expectations about what interviews entail, with creating a relaxed atmosphere for data collection.

3.29 Interview Summary

Interviews are an appropriate way to collect data for a grounded theory research study and this method of data collection was employed by me in my study. Indeed, in order to theoretically sample and undertake constant comparative analysis interviews are essential when using grounded theory. There were a number of issues that I had to consider. For example, how to conduct interviews, what interview questions to ask, the implications of

interviewing in hospitals and the implications of a male researcher interviewing older women.

I worked hard to keep interviews both relaxed but also professional. In doing so, I believe that I facilitated the interview process, gaining much useful data.

3.30 Observations

The other data collection method that I employed was that of the observational method⁵. Initially, I had intended only to collect in-depth interview data, the analysis of which would help me inform and develop a grounded theory to explain why women continue to attend CR classes. However, whilst waiting to conduct pre-arranged interviews at two of the three hospital sites, I was asked, on a number of different occasions, by rehabilitation staff whether I would like to wait at the back of the rehabilitation area until the class had finished. I thus found myself able to directly observe female CR patients. The observational data collection approach lends itself well to understanding people and how they behave in natural environments.

Being an observer in rehabilitation classes gave me the opportunity to watch and record the activities of the women who were attending for rehabilitation within what Lofland and Lofland (1984) refer to as the 'natural' setting. Further, according to Reinharz (1992) observing women in social settings is consistent with aims of feminist research in that observations can document the lives of women, help researchers understand the experience of women from their own perspective and helps to conceptualise women's behaviour. As Gilbert (2005) states:

"Feminist ethnographers value the way ethnography involves researchers working closely alongside the group being studied, and seek to produce analyses which can improve the lot of the women they research." (Gilbert, 2005: 157).

⁵It is worth noting, here, the differences between the terms 'observational data collection' and 'ethnography'. Some authors use the terms 'ethnography and observational data collection' interchangeably. In this study, I have used observations as means of collecting data to support the development of and to help expand emergent categories. This is different from employing an ethnographic approach *per se*, even though the approaches are similar: one is a research design the other is a method of collecting data.

Within grounded theory research methodology, Glaser and Strauss (1967) and, indeed, later on both Glaser (1993) and Strauss (1987) separately, claim that when doing grounded theory 'all is data'. This term, 'all is data' is a fundamental property of both Glaserian and Straussian grounded theory. It asserts that anything and everything the researcher encounters when studying a certain area can be considered data. This means that not only interviews, but also observations, can be considered data. Observations are worthy of analysis and can prove helpful in assisting researchers to generate properties and concepts for their emerging theory.

I used this 'all is data' perspective as justification for using observations and employing observational techniques as part of my grounded theory study.

Robson (2002) asserts:

"As the actions and behaviour of people are central aspects in virtually any enquiry, a natural and obvious technique is to watch what they do, to record this in some way and then to describe, analyse and interpret what they have observed." (Robson, 2002: 309).

Aside from the grounded theory underpinnings, the observational element of data collection for this study was based upon and was shaped by the work of Lofland and Lofland (1984). Their text: *Analysing Social Settings* acts as a guidebook for researchers undertaking observational studies or researchers for whom observational material will contribute towards their research methodology or their theory development. Lofland and Lofland (1984) maintain that if combined with some other data collection process, such as interviews, observational research can facilitate the understanding of social processes and the beliefs and emotions of those being investigated:

"When used ... the observational method is most fruitful when the question, topic or situation you are interested in is physically located somewhere." (Lofland and Lofland, 1984: 23).

Observational techniques were considered useful in this study as the women were being observed attending and participating in CR classes. Further, there are a number of advantages to using observation research techniques. Aside from its directness, those observed can be unaware that they are being studied, thus allowing their behaviour to be observed naturally. Robson (2002) claims

that because of the discrepancies between what people say they do and what they actually do observational methods of obtaining data can reveal information that is not only natural, but also more revealing than mere interviews alone. Indeed, much information, to be discussed later, was obtained that revealed why women attend post-MI CR. However, observational research poses a number of problems. Firstly, there is the issue of whether a researcher should make themselves known to the group under study. Covert observation has a number of practical and ethical implications and these should be worked through prior to the research being started. If a researcher does not conceal him/herself and if they choose to make themselves known to the group under investigation then they run the serious methodological risk of affecting 'naturally' occurring behaviour. Indeed, the extent to which one can 'naturally' study a group of people, especially hospital based patients, in their own environment without actually altering what it is being studied, is complex and much debated.

Some authors, notably Leyland (1990) maintain that ethnography and observational data collection are far too subjective and that all that is produced from such research methods is text, full of a researcher's opinions, with little or no real objective value. Others, for example, Shapiro (1994), suggest that observational research stresses the importance of the context of a particular setting and that, therefore, any data collected need to be seen in relation to the context of the environment from where they have been collected. Shapiro (1994) argues, however that, when reading observational research reports, a reader cannot possibly know about or fully understand the context within which the research was carried out and they may lose some of the point/purpose of the research. This makes it necessary for the author of such research to provide rich descriptions of settings.

Despite these criticisms of the observational method I decided to include observational data in my study. No matter how good an interviewer I may (or may not) have been, it was impossible for me to ascertain, through interviews alone, how the 25 study participants engaged with each other, engaged with rehabilitation staff or what they said whilst in their rehabilitation class. Although I had not originally planned to collect observational data, being presented with

this opportunity meant that I was able to use such data to help me understand why women attend post-MI CR.

3.30.1 Observing post-MI CR women

Lofland and Lofland (1984) suggest that when undertaking observations as part of a research study, the researcher should consider a number of methodological issues. Potential data sites for gathering observational data need to be evaluated for both appropriateness and access. Lofland and Lofland (1984) claim that collecting observational data will prove most useful when the question a researcher is interested in is physically located within a defined place. Observational data collected for this study were obtained at three Welsh hospitals where CR classes were held. This enabled the researcher to access what Kotoarba (1980) calls 'amorphous social experiences.' Amorphous social experiences are experiences that are unique to certain individuals in unique situations, such as women attending post-MI CR classes. As I was interested in exploring female attendance at CR classes it was appropriate for me to collect observational data at the classes.

Lofland and Lofland (1984) also maintain that when collecting observational data consideration should be given to how the researcher is going to access an environment or social space in order to record data. As I had gained ethical permission to enter and interview post-MI CR women gaining access to rehabilitation classes was not a problem. Having established that collecting observational data during CR classes was appropriate and being able to successfully access such classes, I set about collecting observation data. According to Mason (2002) before collecting observational data a researcher needs to consider a number of questions.

Such questions include:

- What is the most appropriate setting?
- What is going to be observed: conversations, the setting, interactions?
- How should the researcher act; what identity should be adopted?

(Mason, 2002: 88-90).

The first question has been answered. In terms of the second question, in the naturalistic and ethnographic traditions, the prime data sources are words and actions. I was interested in what participants said and did whilst attending CR classes. What did they say, how did they act, react and interact with staff and with each other? I asked myself these questions whilst at the same time remembering what the focus of my research was: why do these women continue to attend CR? Lofland and Lofland (1984) state that by looking, listening and (sometimes) asking, a researcher can deepen their understanding about what is happening in any given social situation. Mason (2002) rejects the claim that it is possible to produce a full and neutral account of a setting and that any observational data collection will, therefore, involve some form of data selectivity. To assist in selecting which data to focus upon and to then subsequently record, Mason (2002) maintains that a researcher must have at least some sense of what they are looking for. When observing my sample, whilst they were actually engaged in their CR classes, I looked for anything that I considered significant; anything that would help me to explain my central question and help me develop my grounded theory. I was particularly interested in whether I could obtain observational data to support data I had obtained via interviews.

In terms of my identity, it was not possible (nor, indeed, necessary) to adopt a covert approach. I was not going to be able to 'fit-in' with a group of cardiac patients and to have attempted to do so would have been ethically and methodologically questionable. Gilbert (2005) maintains that when undertaking qualitative research, which might require some form of observational data collecting:

"...researchers should remember that deception is not required in most circumstances. (Gilbert, 2005: 150).

As such, all members of the rehabilitation class (patients, relatives and staff) knew who I was and knew why I was attending. I do not feel that this adversely affected the data I obtained. Because people knew who I was I was able to move around freely and ask questions if necessary.

A central theme in observational research is whether the observing researcher collects data or generates it. According to Mason (2002):

“...to collect ‘naturally occurring data’ fits in with the idea that researcher’s job is to collect or excavate knowledge, than to participate in generating or constructing it.” (Mason, 2002: 88).

However, many social scientists do not view the observational method as a means to gather ‘objectively true’ data (Robson 2002). Rather, they appreciate the relationship between researcher and research subject and their joint involvement in the construction of meanings.

Given the constructivist nature of my research approach I was interested in generating data. I wanted to generate data that would allow me to understand why women attend and continue to attend for CR. As such, I needed to collect data that would help me develop the categories that had emerged through the analysis of interview transcripts. Observational data were to prove especially valuable when undertaking axial coding as the data allowed me to explore relationships and interactions. Anything that I felt was of significance I recorded in a field notebook. I would note not only the event, but also who was involved and the situation in which it occurred.

Robson (2002) maintains that when collecting observational data the researcher should, in the first instance, formulate a rough definition of the phenomenon of interest. Then, the researcher should put forward an initial hypothesis of this phenomenon and then observe a situation and setting to ascertain whether or not this hypothesis fits. For my study, I used my developed and emergent categories to formulate ‘rough definitions’ of the phenomena of interest. In essence, emergent categories were ideas with observational data being collected in order to explore these ideas. That is to say, I went looking for observational evidence to support the categories that were emerging and the theory that I was developing. Whilst analysing the data, certain key questions were kept in mind: what is going on here? What is significant about certain behaviours, certain interactions?

3.31 Chapter Summary

In order to explore women’s continued attendance at post-MI CR, I considered a feminist based Straussian grounded theory the most appropriate research methodology to employ. Through analysis of interview transcripts, observational data, and constant comparative analysis a number of categories, and their

concepts, emerged which illuminated why the 25 participants of my study continued with their post-MI CR.

CHAPTER FOUR: Data Analysis & Category Development

4.1 Chapter Introduction

By employing the grounded theory research approach I was able to develop a theory which provides a credible account for why the 25 participants of this study continued to attend for their post-MI CR programme. The diagram 4.1, overleaf, represents the main findings and depicts the theoretical model that I have developed to account for why the women in my study attended for their post-MI CR. From the analysis of data collected, I am proposing that continued attendance at post-MI CR programmes is facilitated by a process of Restoration of the Self. By restoration I am talking about regaining mastery over one's life, to control one's life, to have the competence and knowledge to re-engage with life activities and to experience increases in knowledge and self confidence.

I hope to show that this restorative process is a credible interpretation to explain why the 25 women who participated in this study continued to attend for their post-MI CR programme.

In this chapter I describe how I coded and analysed collected data and how I built my theory around the core category of 'Restoration of Self.' I will describe the processes of open, axial and selective coding, providing selected examples of data in order to illustrate these coding processes.

4.1.1 Restoration of Self Model

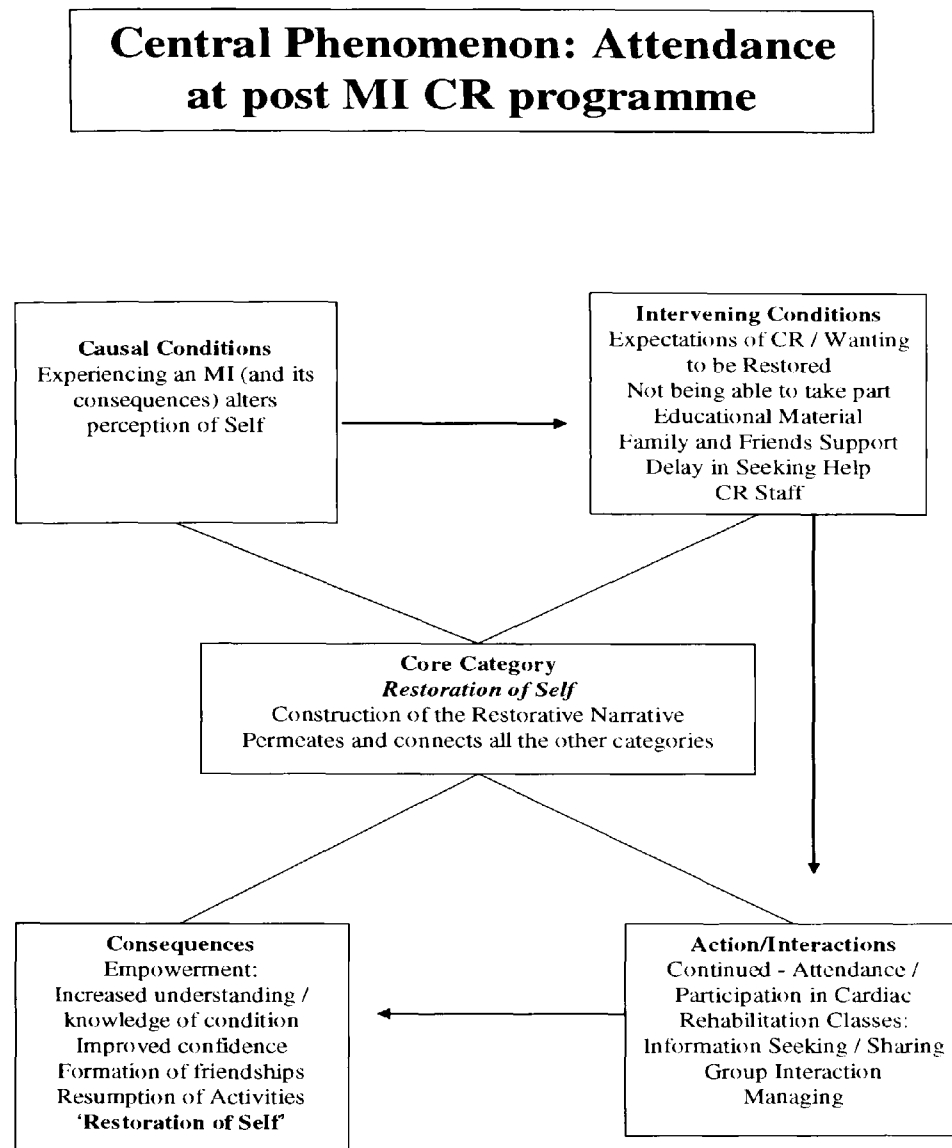


Diagram 4.1 Restoration of Self emerged as the core category in this study and one that permeated all aspects of attending for post-MI cardiac rehabilitation

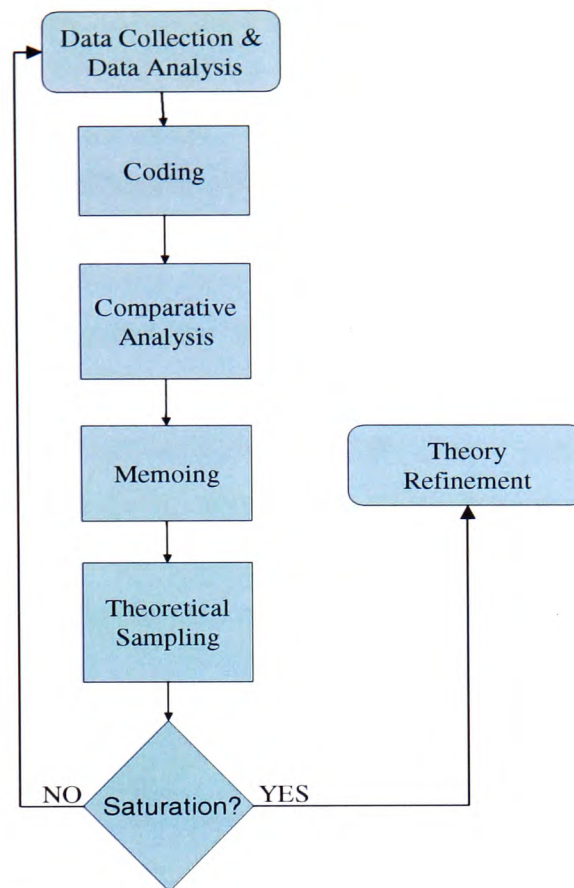


Diagram 4.2 Process of data analysis undertaken in this study

4.2 Coding

During interviews participants were asked to explain how they felt they had been affected by their heart attack. After exploring this, I then asked questions about how they felt about their CR programme and why they continued to attend. They were encouraged to discuss whether their rehabilitation programme had helped them and if so, how? I wanted to explore whether they felt that attending CR had helped them to overcome some of the problems they had endured since having their heart attack. Furthermore, participants were asked to explain why it was that they continued to come back to rehabilitation week after week.

Each of the 25 interviews that were tape-recorded were transcribed verbatim soon after their completion and, in line with the grounded theory method, categories and their concepts and properties were constructed through line-by-line analysis of the transcribed text. In grounded theory, initial coding begins by

opening up the text and identifying concepts and developing these into categories. This is called 'open coding.' Whilst analysing the data, certain, key questions, were kept in my mind: what is going on in the text? What is significant about certain sections of the text? Diagram 4.2, above, shows the coding process that I employed in my study.

One of the key findings to emerge from my study was that all 25 participants completed their CR programmes successfully. By analysing transcripts of the 25 interviews undertaken a number of concepts emerged which were related to this attendance. These concepts were then developed into categories. Then, during axial coding, initial categories were modified, in light of the relationships between them, and additional categories were developed. Diagram 4.3, below, lists these emergent concepts and categories.

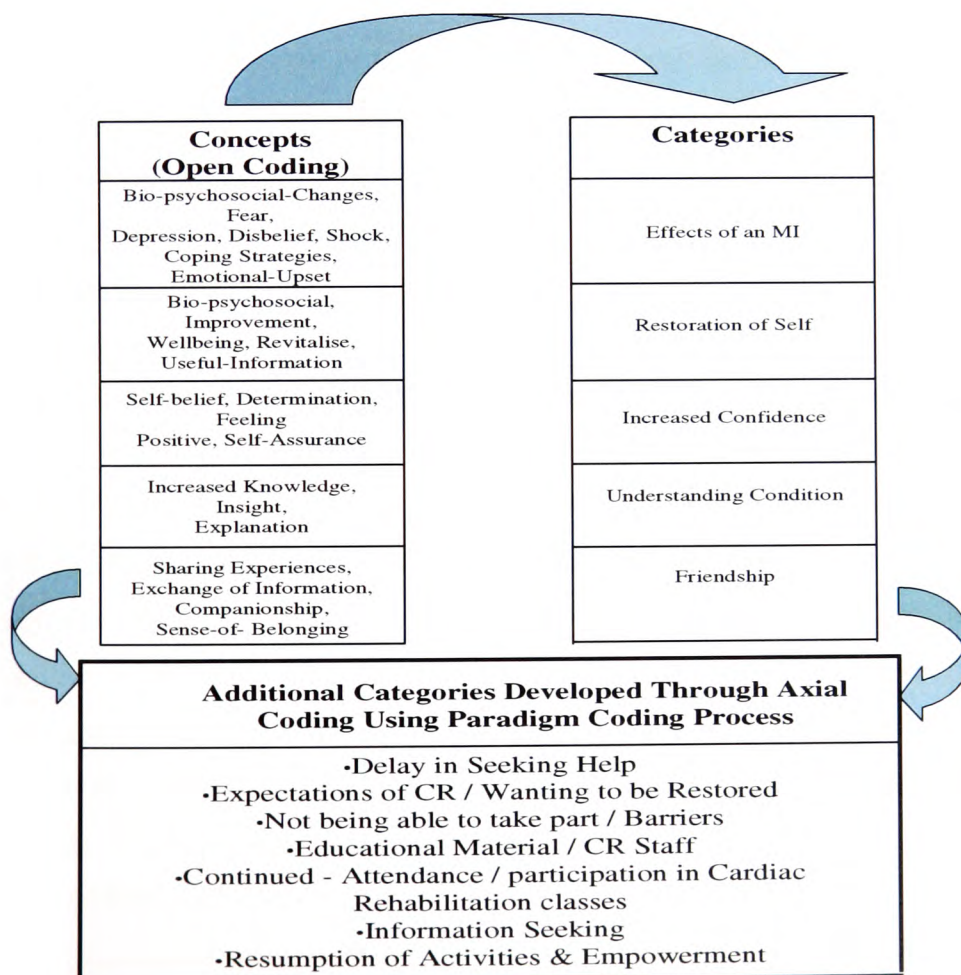


Diagram 4.3 Developed concepts and categories

What now follows is a discussion on how these concepts and categories were developed. First, I provide a brief discussion on the presentation of data.

4.3 Presentation of Analysed Data

According to Dunleavy (2003) when writing a PhD thesis researchers often leave their readers (and examiners) in the dark when it comes to demonstrating exactly how data were analysed. It is important to show how transcribed interviews and observational field notes were analysed and coded. Further, Dunleavy (2003) asserts that it is important to adequately demonstrate concept, property and category development. Others, notably Silverman (2001), claim that it is not enough to just present large 'chunks' of raw data. The researcher must show how data were analysed and coded. A balance must be reached between keeping large amounts of transcribed interview data to a minimum with providing enough examples to demonstrate how such data were analysed.

The purpose of this chapter is to demonstrate how data were analysed and to show that the concepts, properties, categories and core category, that have been developed, were emergent from the data obtained. To do this, I shall include segments of interview text in order to demonstrate both the coding procedures used and concept and category development. It is good practice, when writing up a grounded theory research study, to include suitable quotes in the text to illustrate the meanings of the concepts and categories that have emerged (Charmaz 2006). However, during my study I collected nearly 50 hours of tape recordings and over 12 hours of observational material and to reproduce all of this data, in its raw form, would not be appropriate. Therefore, I have been necessarily selective in choosing which data to include here. In order to strike a balance between too much raw data and not enough evidence of appropriate analysis and coding, I have included, in the appendices, a section from interview one, which has been coded, and one set of observational notes. These are provided to demonstrate how interview and observational data were coded and analysed (see Appendix Five). Further, throughout this chapter raw interview and observational data have been presented, whenever necessary, in order to demonstrate the thoroughness of the data analysis process and concept and category development.

In certain places it may appear that I have provided too much detail in terms of how I analysed and coded data. However, it is my belief that good grounded theory is based upon the implementation of sound analytical steps and I feel it necessary to describe these in detail.

In grounded theory research the processes of sampling, data collection and data analysis occur concurrently. Although the order in which these procedures occur in this thesis runs as follows; sampling, data collection and data analysis, in reality, when I was undertaking the study, these processes occurred simultaneously. Thus, each interview transcript was compared with the previous. Further, each new interview transcript was analysed before the next interview was undertaken. This was also the case with observational data, with each observational session being written up and analysed before the next was undertaken. The process of comparing one analysed transcript with another is referred to as constant comparative analysis. Strauss and Corbin (1998) maintain that; once initial coding has begun and initial properties have started to emerge, the researcher must continue sampling using the process of theoretical sampling. This process ensures that:

- Emergent concepts guide subsequent interviews
- Emergent concepts are continuously examined and developed

Analysis of data is determined by the types of data that have been obtained. For this doctoral study the types of data obtained were interview data and supplementary observational data, obtained from field notes and memos.

4.4 NVivo

I used NVivo to assist in the management, storage and analysis of my data. NVivo is a qualitative computer software package designed to assist in the process of data analysis. The design of NVivo was influenced by grounded theory (Gibbs 2002) and, therefore, the programme is well suited for use in research studies where grounded theory is used to collect and explore qualitative data. Strauss and Corbin (1998) provide a clear and accessible account of grounded theory data analysis and the processes and techniques used for achieving grounded theory analysis can be well supported using NVivo (Gibbs 2002).

Using the NVivo package I was able to explore and analyse my collected data more comprehensively and more thoroughly than if I had chosen the more traditional methods of printing, reading and highlighting hard copies of interview transcripts. NVivo allowed me to organise my data into manageable sections and this facilitated subsequent coding and analysis.

In order to demonstrate clearly how I analysed my data, I have included, within this chapter, a number of picture screens which show the process of data analysis using NVivo. According to Silverman (2005) a common criticism of grounded theory is that, if used unintelligently, it can degenerate into the building of empty and meaningless categories. He continues to argue that, often, when researchers are claiming to be undertaking grounded theory data analysis they will present extracts of data, but instead of demonstrating their process of data analysis, all they simply do is present a précis of what each respondent has said followed by an arbitrary label. To avoid these criticisms the screen pictures found, herein, graphically demonstrate not only the process of line-by-line data coding and analysis but also clarify how I developed concepts and categories and how these processes aided the development of a 'grounded-theory' to explain why women continue to attend post-MI CR programmes.

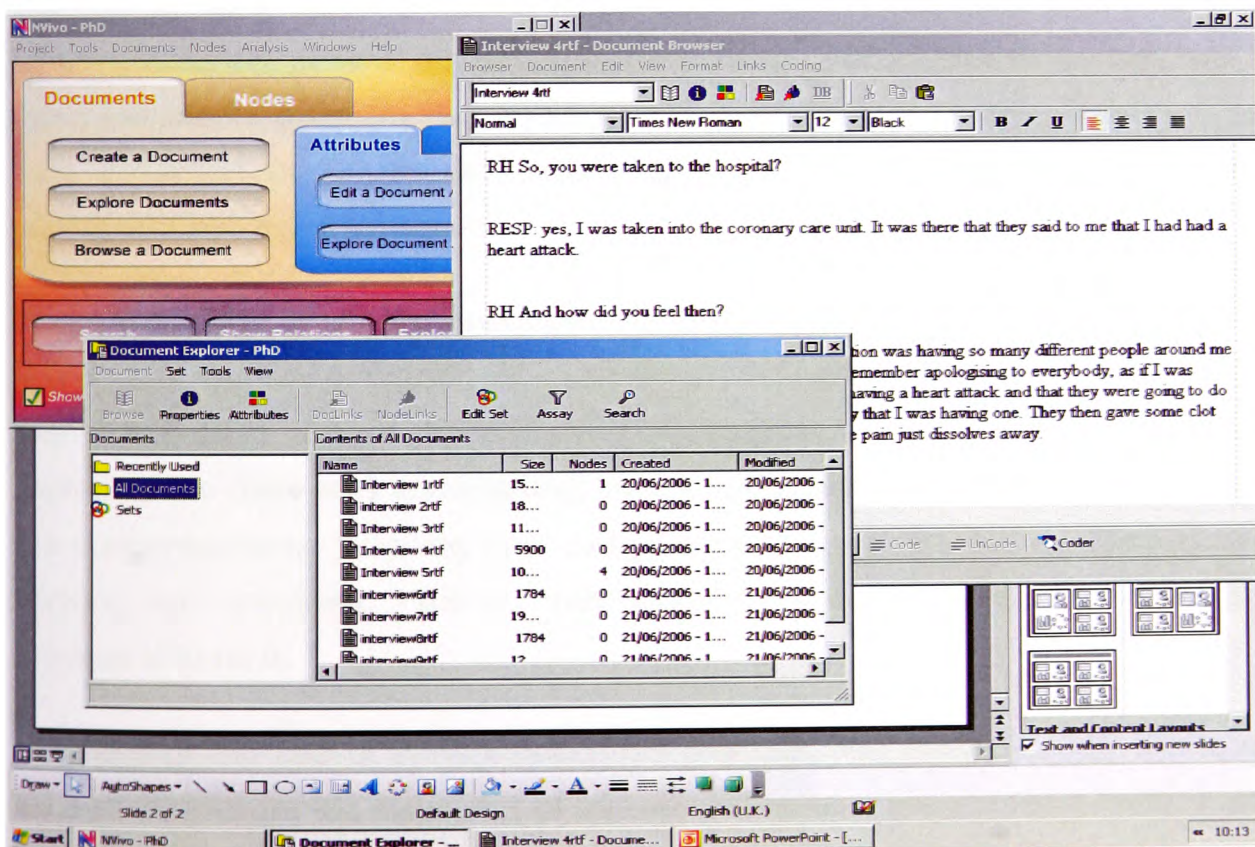
4.5 Analysis of interview data

Strauss and Corbin (1998) divide data analysis into three overlapping stages:

- Open Coding
- Axial Coding
- Selective Coding

Although I started analysing data by open coding and then progressing onto axial and selective coding, when I was analysing data I moved many times between each coding phase, especially during open and axial coding. Indeed, I found that data analysis was a circular process, requiring me to go back and forth between the coding phases.

Transcripts were imported directly into the NVivo package for analysis. See picture 4.1



Picture 4.1: showing importation of RTF documents into NVivo for data management and analysis

4.6 Open Coding

Analysis began with open coding, where the text was read and coded line-by-line. In doing this, concepts and their properties were identified and categories were developed. Strauss and Corbin (1998) maintain that this is the first step in theory building and call this process 'conceptualising'. Within Straussian grounded theory a concept is defined as a labelled phenomenon and is an abstract representation of an event, object or action (Strauss and Corbin 1998).

Strauss and Corbin (1998) maintain that in order to focus data analysis it is necessary to keep in mind the general aims of the research project; what is it that the researcher wants to find out about. This study focused upon exploring factors that influenced women's continued attendance at CR programmes and I kept this aim in mind when I was reading and analysing the collected data. This allowed me to focus my initial analysis.

As I read through each transcript I identified certain significant statements, specifically in relation to why women attend post-MI CR programmes. These statements were given a name which Glaser and Strauss (1967) originally referred to as an 'in vivo' code. Coding was more difficult during the first two – three interviews because no previous data had been collected. However, as data collection continued and concepts were continuously developed the coding process became easier.

Reading through all of the transcripts, I was able to break down the textual data and code a number of significant statements. Strauss and Corbin (1998) assert that researchers should discern which interpretations are most accurate by exploring the data and undertaking comparative analysis. They maintain that the conceptualising, labelling and coding of data is an art that involves lateral thinking and creativity. Further, they assert that the best way to learn this process is to do it.

I found that the use of NVivo aided this process. For example, the following excerpt taken from the transcript of the second interview is part of a reply given by a participant when asked how her heart attack had affected her:

"I was really frightened after having my heart attack. I was petrified that I would die in the night, or die on my own if my husband wasn't there with me in the house. This fear was the worse thing for me. Coming to rehab has allowed me to get over it. It is the fear of the unknown, but at rehab you get a lot of information that helps you deal with your fears." (Participant 2)

As can be seen, I highlighted significant parts of this passage. I gave them the conceptual coded label of: 'Fear' as this is what the highlighted text represents and refers to.

It is important, when open coding, for the researcher to remember that recorded text is always an example of a more general phenomenon and that, when coding, code names should indicate this more general idea. Thus, by analysing the above interview transcript, the statement: *"I was really frightened after having my heart attack. I was petrified that I would die in the night"* was identified and labelled as forming part of, and being related to, the concept of Fear. In another section, part of the same interview, the participant provided the following answer, in response to being asked to expand upon how her heart attack had affected her:

"I was very low after I had my heart attack. I couldn't believe that it had happened to me." (Participant 2)

The statement: "I was very low after I had my heart attack. I couldn't believe that it had happened to me" formed part of two other developed concepts, those of Depression and Disbelief. Screen Picture 4.2 in Appendix Six provides an example of how I undertook the open coding process using NVivo.

The process of open coding was undertaken on each interview transcript, with each interview being transcribed before the next one was undertaken. This meant that, during subsequent data analysis and through the constant comparative analysis process, statements that shared similar characteristics were given the same code. For example, the following excerpt is from another interview transcript. Again, the participant was asked to describe how having a heart attack had affected her:

"I was all up the wall. I didn't know where I was. I was so very, very weak afterwards, as weak as a kitten. I couldn't do anything. I would get out of breath easy and tearful; oh, I was so tearful. I suppose was living in fear. I had gone from the coronary ward to home in a short space of time and I found that very frightening. To have all those people around you, with all those monitors and to go home to nothing...I found that I was waiting for something to happen. Terrifying." (Participant 17)

As can be seen from the above passage, this participant states that she was; "living in fear" and mentions the word: "Terrifying." As such, these data were also given the conceptual code: Fear.

When open coding, Strauss and Corbin (1998) maintain that concepts can either be given a name by the researcher or the name of a code can be taken directly from the words of the respondents themselves. However, what is important is that concepts should be related to, and should make sense of, what has been said (Strauss and Corbin 1998). This involves a certain degree of interpretation. As such, during the data analysis phase of my research, I made close examinations and subsequent interpretations of the data in order to make sense of what had been said and recorded. When reading interview transcripts I continuously asked myself: 'what are these words an example of?' Data were then coded, that is to say, given a theoretical concept. This then allowed me to understand and make sense of what the data represented.

It is worth acknowledging here, what Ramazanoglu and Holland (2004) say about the processes of interpreting what women have said in a given situation. Any such interpretations will be problematic for a number of reasons. For example, the implications of a male researcher interpreting the words of women posed a number of methodological, social and theoretical problems. However, these problems are addressed later, in the reflections chapter (see pages 278-280).

4.6.1 NVivo Technique in Open Coding

Using NVivo, I was able to quickly and efficiently code each interview transcript. This process yielded many concepts. However, the process of coding data for concepts is only the first phase of open coding process, for, although when labelling data some basic analysis is being undertaken, in order to develop and explore concepts a more thorough analysis is required.

4.6.2 Microanalysis

As the conceptualisation of data necessitates interpreting and selecting certain data, it is important to demonstrate why certain statements are selected and coded and why others are not. Further, when coding data it is important for the researcher to demonstrate exactly what assigned conceptual codes mean. Therefore, to avoid ending up with a long list of what would otherwise be meaningless concepts, Strauss and Corbin (1998) maintain that in order to discover what concepts mean and in order to gain a deeper understanding of what concepts actually stand for it is necessary to undertake what they refer to as 'microanalysis.' This is a process whereby a researcher asks deeper questions about data, compares new data with old and starts to discern a range of potential meanings contained within words used by research respondents. In essence, the researcher 'breaks-open' the text and looks beneath the surface of uttered words to gain a greater insight into their usage and meanings. As Strauss and Corbin (1998) state:

"Just naming objects does not always explain what is going on in any deeper or complete sense. It is important to note that we do not go through an entire document, put labels on events, and then go back and do a deeper analysis. The labels that we come up with are, in fact, the result of our in-depth detailed analysis of data." (Strauss and Corbin, 1998: 110).

Through this process which is still part of the open-coding phase of data analysis the properties and dimensions of concepts can be identified and explored. By properties and dimensions, Strauss and Corbin (1998) mean the general characteristics, attributes and variations of concepts. For example, in the examples, given above, where data were being coded and given the conceptual label 'Fear' it is not enough to just label a statement or phrase as 'Fear'; one needs to explore the characteristics, attributes and variations of this concept. 'Fear' is the label, but it has a number of properties and characteristics. When data were analysed it became apparent that the post-MI women were fearful of a number of phenomena; fear of dying, fear of having another heart attack, fear of losing their job, fear of not seeing relatives again. This fear manifested itself in a number of ways, emotionally, physically / behaviourally. Further, it emerged that 'Fear' had the dimension, variability, of being severe, mild, moderate or unbearable. Thus, 'Fear' was developed as a

conceptual label and this concept included a number of properties and dimensions. See diagram 4.4, below,

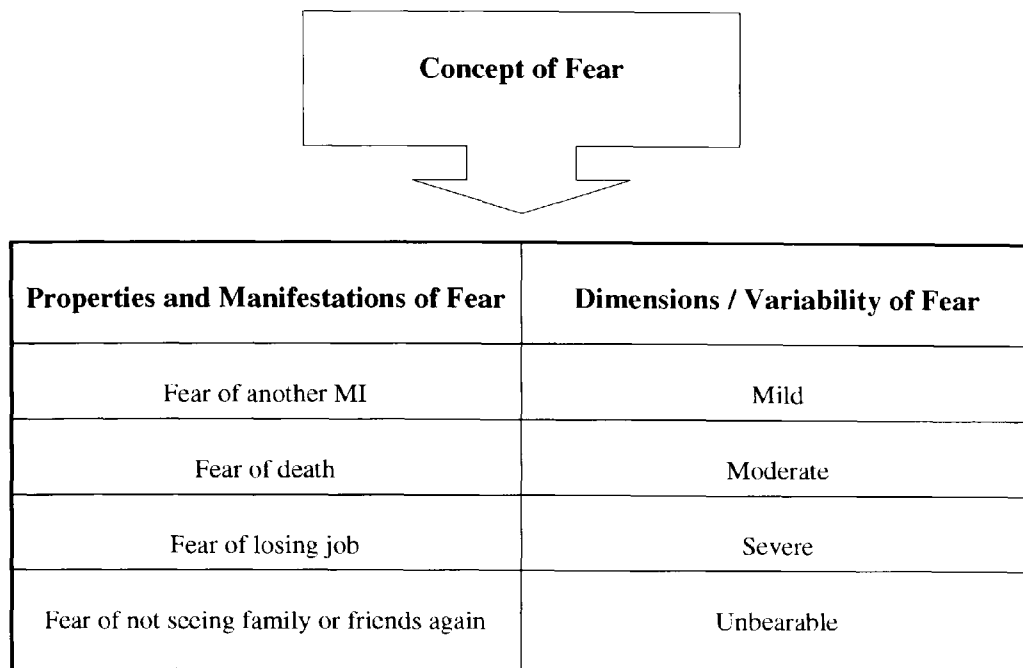


Diagram 4.4 Showing the properties and dimensions of the concept: 'Fear'

Thus, the concepts that I formulated during my analysis of data were developed as a result of this microanalysis process. What follows is a detailed account of how I undertook this micro-analytical process. To facilitate microanalysis and to aid in the development of concepts I employed a number of analytic tools as suggested by Strauss and Corbin (1998). Specifically, these included:

- Asking questions (of the text)
- Analysis of words, phrases and / or sentences (in terms of their meanings)
- Constant Comparative Technique (comparing new data with previously obtained data and/or literature)

Memoing was coupled with the above analytic tools. Essentially, memos are a log written by oneself, to oneself of analytic sessions. They act as a list of ideas, thoughts and assumptions about data and allow the researcher to comment upon data throughout the entire data analysis process.

Thus, as I analysed and coded data, I wrote numerous memos. These allowed me to theorise about the data and allowed me to explore relationships between concepts and, later, categories. Specifically, memo writing assisted me to define the meanings of concepts and aided the development of broader categories during the later stages of open coding. Further, by writing memos, I was able to develop my ideas and thoughts and modify subsequent questioning, as was necessary when undertaking theoretical sampling.

4.6.3 Example of Microanalysis

Appendix Five contains an excerpt from the first interview and provides a thorough and more comprehensive example of the data analysis, open coding and micro-analytical processes employed throughout my study. It demonstrates the process whereby initial concept and category were developed.

Although this section of the interview was coded and analysed using NVivo, it is presented in Appendix Five as a Word document. Conceptual names (codes) are presented in bold after highlighted text. Although only 'Fear' as a concept has been discussed so far, the excerpt contains examples of some other concepts that were identified. From this excerpt it can be seen that open coding began with an exploration of all the different facets of information that was of interest. The aim of this process was to produce a relevant list of concepts that related to what the participant felt it necessary to reveal. Whilst analysing the data line-by-line, certain key questions were kept in mind: What is going on here? What is significant about certain sections of the text? As a result of this process a number of concepts were developed and these are listed in table 4.1, below:

Developed Concepts

Coping-Strategies, Fear, Disbelief, Bio-psychosocial Changes, Shock, Insight, Explanation, Improvement, Increased-Knowledge, Self-Assurance, Motivation, Useful-Information, Positive-Experience, Sense of Belonging, Companionship, Wellbeing.

Table 4.1: Developed Concepts

Developing concept labels will not, in itself, provide any greater understanding as to what these labels mean. Further information is required to demonstrate exactly how data were analysed and concepts derived. This is done through microanalysis. Microanalysis not only allowed me to undertake detailed and discriminate data analysis, but through this process concepts were further developed in terms of their properties and dimensions.

According to Strauss and Corbin (1998) a good questioning method to use when micro-analysing data is to consider what words and text mean: what do they suggest and from whose point of view? These questions were considered when I was analysing data.

To facilitate my data questioning technique, I needed to place the data in context. When answering the question; 'What do these words mean or refer to?' I always kept in mind the general aims of the research project; why do women continue to attend CR classes following an MI? Placing the data into context focused the data; gave it a frame of reference, facilitated the process of coding and made analysis easier. Initial ideas about data are what grounded theorists call 'sensitising concepts.' Thus, when I was analysing data, I was always aware that, whatever else might happen or emerge, my focus was about exploring why women continue to attend CR programmes.⁶

In the transcript excerpt in Appendix Five the first coded concept was that of Coping-Strategies. In response to being asked to describe the experience of

⁶ Glaser (1992) would argue that this would amount to a 'narrowing' of the analytical process; that this might narrow a researcher's focus and, possibly, prevent a researcher from seeing other, significant, analytical insights that data might present. However, Strauss and Corbin (1998) maintain that asking questions and keeping the aims and objectives of a project in mind, especially during initial coding, helps a researcher get past a potential block of not knowing where to start or what to look for in data. Further, Strauss and Corbin (1998) maintain that questioning data helps to generate ideas and ways of looking at data.

having a myocardial infarction this participant had stated that she initially thought her chest pain / discomfort was indigestion. Further, she claimed that even when she arrived back home, after work, she still thought her chest discomfort was indigestion, rather than it having a cardiac origin. She claims that this was, perhaps, her way of coping with the discomfort. She goes on to explain that she is, generally, very dismissive of her problems.

When reading through this section of the transcript, I kept in mind the questions; who has said it? Why have they said it? Is it significant? Considering these questions I conceptualised the data and labelled certain sections with the code: Coping-Strategies. This conceptual code is justified for two reasons. Firstly, it can be reasonably asserted that being dismissive about one's health is a type of coping strategy. Indeed, this particular respondent states; *"I didn't want to accept it could have been anything else."* Secondly, this respondent actually says that by incorrectly attributing her chest discomfort to indigestion, she was *"coping with it."*

To further justify the uses of the conceptual label: Coping-Strategies I employed the other analytical tools of microanalysis; those of analysing words and making comparisons. Here, I wanted to know more about coping-strategies and I wanted to define the term 'coping-strategies.' To do this, I explored the work of other authors and compared their work with mine.⁷

A number of authors, notably Lazarus and Folkman (1984), have explored the notion of coping, suggesting that it is an adaptive mechanism employed in certain situations in an attempt to overcome problems (Lazarus and Folkman 1984). Comparing this literature, with my own, I found enough similarities between them to justify my claim that respondent two was, indeed, employing a form of coping strategy in the early stages of her myocardial infarction. By defining 'Coping' and by comparing other authors' work on coping strategies with that of my own, I was assured that the conceptual label: Coping-Strategies was an appropriate conceptual label to use and that this label gave meaning to and elucidated what the respondent had said to me.

⁷ Strauss and Corbin (1998) assert that once a number of interviews have been transcribed and coded, the concepts of one interview can be compared with those of another in order to develop concept and category development. However, in the initial stages of data analysis, when there are few transcribed interviews, data can be compared with relevant literature in order to facilitate concept and category development.

The next coded concept to be labelled, in interview one, was that of: Fear. Again, when coding certain data and giving them this conceptual label, I employed the three analytical tools of microanalysis. When asked to describe her feelings about being told she had had a heart attack and about being taken to the coronary care unit, participant one stated:

"It was quite frightening. My initial recollection was having so many different people around me all at the same time. That was very scary." (Participant 1).

When reading this section of transcript one I again considered the questions: 'What does the text mean?' Who has said it? Why have they said it? Is it significant? This section was analysed and was given conceptual label of: Fear. I use the fact that the respondent employs terms such as 'frightening' and 'very scary' to justify this conceptual label. The process of open coding and micro-analysis enabled me to develop such concepts, in terms of their dimensions and properties, and this allowed concepts, and later on categories, to be compared.

As I continued to analyse interview transcript number one a number of other concepts emerged which appeared to relate to why this particular participant attended CR, following her heart attack. For example, the following excerpt demonstrates coding for the concepts of Feeling-Positive, Revitalised, Improvement, Sharing-Experiences and Explanation. Again, these concepts were developed using the micro-analytical process outlined above. Further, the attached memo, at the end, also demonstrates my initial thoughts on this passage.

Ray Higginson:

So, how have you found your CR programme, what have been the best parts of the programme?

Participant Two:

"Oh, I have found it wonderful. [Feeling-Positive] I feel, almost, recharged, [Revitalised] like the person I was before I'd had my heart attack. [Improvement] One of the best parts have been listening to other people who have a similar experience [Sharing Experiences] and having a load of nurses around you so as you can ask them lots of questions." [Explanation]

Memo 18/3/06

One of the first things I notice, here, is that the respondent is very positive about her cardiac rehabilitation; ('feeling wonderful' is surely an indication of her positive attitude toward her rehab?) I also note, here, that she says she feels 'recharged' perhaps by attending rehabilitation classes following a heart attack women are recharged, possibly restored? Another explanation as to why she attends is contained within her statement about 'listening to other people.' Perhaps being able to talk and listen to other people is important in affecting women's decisions to attend cardiac rehab? I'll need to explore this further. Also, this respondent, as well as respondent number one, mentions being able to ask questions. Perhaps being able to ask unlimited questions in a friendly and non-threatening environment can also facilitate attendance at cardiac rehab? I also need to develop and explore the concepts: Improvement & Revitalised. Are they not the same phenomenon? Is not being 'recharged' a form of improvement? I need to explore this. My initial feelings are that revitalisation is a psychological experience, whereas improvement could involve some form of physiology? However, what is important is not whether this person actually has been revitalised and physically improved, only that she perceives herself to be so. I must explore these issues in the following interviews.

The above excerpt provided another example of how I analysed my data. The attached memo indicates my initial thoughts on what was happening; what could possibly explain why this particular respondent attended for a post myocardial infarction CR programme? Although this was only the first interview, by coding the textual data and exploring the concepts: Feeling-Positive, Revitalised, Improvement, Sharing-Experiences and Explanation I started to formulate tentative explanations as to what might affect attendance at CR programmes.

Open coding and micro-analysis of the first three interview transcripts yielded many more conceptual codes, see table 4.2 below. Due to word limitations it is not possible to provide a detailed explanation of how all of these concepts were

coded for and developed. However, they were all arrived at through the process of open coding and microanalysis. Appendix Seven contains examples of the concept indicator model for each of the main categories developed from the study.

Developed Conceptual Codes (Concepts)
Bio-Psychosocial-Changes, Fear, Depression, Disbelief, Shock, Coping Strategies, Emotional-Upset, Perceived Improvement, Wellbeing, Revitalise, Useful-Information, Assurance, Self-belief, Feeling Positive, Self-assurance, Increased Knowledge, Insight, Explanation, Sharing Experiences, Exchange of Information, Companionship, Sense-of-Belonging

Table 4.2 Conceptual codes developed from interviews one, two & three

4.6.4 Category Development

Concepts, in themselves, are too basic and too numerous to work with. When undertaking grounded theory research, once concepts start to emerge, they should be grouped together to form categories. Indeed, Strauss and Corbin (1998) maintain that once concept development begins and more and more concepts start to emerge:

“...the analyst should begin the process of grouping them or categorising them under more abstract explanatory terms, that is, categories.” (Strauss and Corbin, 1998: 114).

In essence, categories are groups of concepts. Categories form the major units of analysis in the grounded theory method. Theory development is facilitated by exploring relationships between these more abstract categories.

The concepts in table 4.2 were developed by opening up the text and breaking it down (coding it) into discrete incidents, ideas, actions and events. Once this process had started and more and more concepts were derived I realised that certain concepts could, indeed, be grouped together under more abstract and higher order terms.

By grouping concepts together I was able to develop the explanatory categories found in table 4.3, below.

Developed Categories
Effects of an MI
Restoration of Self
Increased Confidence
Understanding Condition
Friendship

Table 4.3 The five categories developed during Open Coding of first three interviews

Strauss and Corbin (1998) assert that category names should relate to the derived concepts but should be broader and more comprehensive in terms of explanation than concepts. A category name should be a 'heading' and it should provide for a more abstract understanding of what is going on.

In order to develop categories I drew up a list of all of the concepts that were derived from the first three interviews (Table 4.2). I then set about grouping these concepts together in terms of their shared characteristics and in terms of what they had in common. For example, the concepts of Fear and Coping-Strategies (along with the concepts of Bio-Psychosocial-Changes, Depression, Disbelief, Shock and Emotional-Upset) were given close examination. By comparing these concepts and by analysing their differences and similarities I concluded that this group of concepts could be grouped under the more abstract category of: Effects of a Myocardial Infarction as, in essence, these are what the concepts relate to: the effects of having a myocardial infarction.

Having a myocardial infarction can induce a sense of fear and can lead to a sense of disbelief and perceived physical changes. By coding the first three

interview transcripts codes were developed that supported the claim that the participants had experienced the emotions of fear, disbelief and shock following their myocardial infarction. These concepts were then grouped together and given the category name Effects of a Myocardial Infarction. Similarly, the concepts of Increased Knowledge, Insight and Explanation were grouped together under the more abstract category of 'Understanding Condition' as these concepts seemed to indicate the participant's increasing understanding of their heart condition whilst they attended for post-MI CR. Gaining a greater understanding of their heart disease and gaining insight into their heart condition was to prove significant in terms of why my sample attended for CR.

The other emergent concepts derived from the first three interviews were also grouped together and developed into categories. As categories were developed I wrote memos about each which commented upon areas such as, the properties of the categories, the condition under which a category developed and how categories differed from each other. The categories derived from analysis of data obtained from the first three interviews were embryonic. As such, these categories served only as initial categories; tentative categories that were to change and develop in light of new data. Categories did change as new data were obtained through the processes of theoretical sampling and constant comparative analysis. When undertaking grounded theory research it is important not to force subsequent data into initial categories. One can use initial categories to guide subsequent data collection, but initial categories must be fluid; so that they can be changed, adjusted and modified in light of new data.

To avoid building 'useless' concepts and categories and to aid theory development I constantly compared old data with new data. I concurrently collected, coded, and analysed my data and then decided what data to collect next and where to find them. This process aided concept, category and, later, theory development.

After coding and analysing three interview transcripts and after developing the concepts and categories outlined above, I set about obtaining support data for the initial categories. In keeping with the principles of theoretical sampling, each additional interview was subsequently compared with the previous one to

enable the development of further categories. In essence, once the first interview had been analysed I set about collecting data that would either support or refute the initial categories that had been developed. Strauss and Corbin (1998) state:

“During initial data collection, when the main categories are emerging, a full 'deep' coverage of the data is necessary. Subsequently, theoretical sampling requires only collecting data on categories, for the development of properties and dimensions.”
(Strauss and Corbin, 1998: 34).

To facilitate concept and category development I undertook the following:

(a) Carefully selecting, via theoretical sampling, subsequent research participants to interview in order to build upon initial categories. This enabled me to modify and extend categories and to then extend the developing and emergent theory.

(b) As more and more data were collected and analysed I developed specific questions in order to replicate what had occurred in previous interviews, that is to say, to ‘test’ categories and the emerging theory.

(c) Continuously consulting appropriate literature to help develop and support category development.

Through the process of constant comparative analysis, any additional data (for example, interview statements and/or appropriate research literature) that were collected were then compared to the initial categories. These data were then either placed within the most appropriate category or if they were found to be new data, they would form the basis of a potential new category.

During subsequent data collection and analysis many of the initial concepts did reoccur. For example, in response to being asked about her experience of having a myocardial infarction, Participant number six stated:

“The whole experience terrified me. I was petrified when I left hospital. I kept thinking I was going to drop dead. Apparently, this is quite a common feeling to experience following a heart attack.”
(Participant 6)

This statement was duly coded and given the conceptual label: Fear. This respondent claimed that she found the whole experience of having a myocardial infarction terrifying. As such, the conceptual code of 'Fear' was appropriate as these data are indicators for the phenomenon of fear. Once coded for and conceptualised these data were then placed into the 'Effects of an MI' category.

The following is another example of subsequent data supporting the initial categories. In response to being asked about their CR programme participant six stated:

"Attending cardiac rehabilitation classes has given me back my confidence[Self-Assurance] and I now feel much more determined,"[Determination] to get back to my old self,"[Restoration] Participant 6)

This excerpt has been coded and contains the conceptual labels of Self-Assurance, Determination and Restoration. Respondent number one gave similar responses to being asked about her CR. Once coded and conceptualised two of the above concepts were placed into the category of Increased Confidence, thus providing supporting evidence for this particular category. However, not all of the concepts that were derived from the first three interviews emerged again during subsequent data collection. For example, in response to being asked about her CR attendance and what influenced her decisions to attend, participant two stated:

"I come for a number of reasons, but I feel that I don't want to let my doctor down [Pleasing Others]. He's a lovely young chap and I'm sure he would be cross if he found out I was overdoing it or not coming... love coming here and I think I would have come even if my doctor had not said I had to, but he's been a big influence." [Influential Other] (Participant 2)

Here, I had coded certain statements and gave them the conceptual codes of; 'Pleasing Others' and 'Influential Other'. In this passage participant two claims that she considered her doctor's advice as a significant influence on her attendance. Although she later explains that other factors also influenced her decision to attend for rehabilitation she believed that if she was to stop attending her doctor would not be have been pleased and so, for this

participant, the advice of her doctor influenced her attendance. However, during subsequent data collection no other participants said anything that supported the phenomenon of influential medical advice. Although rehabilitation staff (nurses and physiotherapists) were to prove significant in facilitating rehabilitation attendance, this phenomenon was not recurrently emergent:

Ray Higginson:

“Can you tell me; what about the advice you received from your cardiologist, when you were in hospital, do you think this had any impact upon your decisions to attend for rehabilitation; do you consider him an influential factor:”

Participant:

“Maybe, I mean it would be silly not to follow the advice of your doctor, but I don’t think he’s forced me to attend and I don’t think about him when I’m here. I think the nurses have a bigger influence, to be honest. (Participant 18).”

As I obtained no subsequent data to support the ‘Pleasing Others’ concept, it was dropped. This is not to say that the concept ‘Pleasing Others’ was not important for this particular participant, but using the constant comparative method demonstrated that it was not a recurrent concept and, as such, it was omitted.

Sometimes during subsequent data collection and analysis new concepts emerged and these were developed into either new categories or assimilated into pre-existing categories. Through the analysis and constant comparative methods involving the 25 study participants a final, comprehensive list of concepts and categories was developed as seen in table 4.4, below:

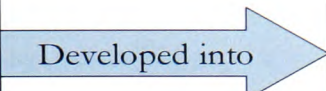
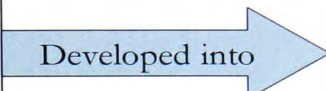
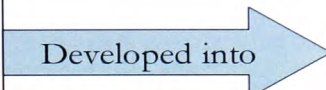
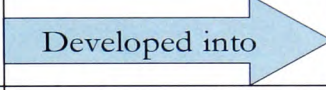
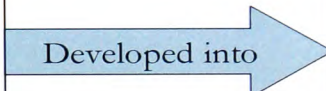
Grouped Concepts		Categories
Bio-psychosocial-Changes, Fear, Depression, Disbelief, Shock, Coping Strategies, Emotional-Upset	Developed into 	Effects of an MI
Bio-psychosocial, Improvement, Improved-Wellbeing, Revitalise, Useful-Information	Developed into 	Restoration of Self
Self-belief, Determination, Feeling Positive, Self-Assurance	Developed into 	Increasing Confidence
Increased Knowledge, Insight, Explanation	Developed into 	Understanding Condition
Sharing Experiences, Exchange of Information, Companionship, Sense-of- Belonging	Developed into 	Friendship

Table 4.4 developed concepts and categories

Strauss and Corbin (1998) state:

“The literature can be used as secondary sources of data. Research publications often include quoted materials from interviews and field notes and these quotations can be used as secondary sources of data for your own purposes” (Strauss and Corbin, 1998: 52).

Once the categories had started to emerge I was able to engage in the other phase of grounded theory’s data coding and analysis process, that of axial coding. Through the axial coding process, categories were further developed, sub-categories were identified and category relationships were explored.

The categories to emerge through axial coding are found in table 4.5, below:

Sub-categories that emerged from axial coding	Component part of the Paradigm Model
Experiencing an MI (and its consequences on the Self)	Causal Condition
Expectation. of CR / Wanting to be Restored Not Being Able to take Part/ Barriers Educational Material Family / Friend Support Delay in seeking Help Beliefs	Intervening Conditions
Continued Attendance in CR Classes Information seeking / Sharing Group Interaction	Actions / Interactions
Increased Understanding / Knowledge of Condition Improved Confidence Formation of Friendship Resumption of Activities Empowerment Restoration of Self	Consequences

Table 4.5 Categories developed from axial coding

It must be noted, here, that although I have written this data analysis chapter as consisting of a number of stages (open coding, axial coding, selective coding, for example) it is important for me to stress that when undertaking my study these coding processes were undertaken concurrently. I often moved between open and axial coding as I was developing my categories. In essence, open coding allows me identify categories and axial coding, to which I will now turn, enabled me to develop these more fully.

4.7 Axial Coding

During axial coding the emphasis is on developing categories and then relating them together. As Strauss and Corbin (1998) state, axial coding is so called because:

“...coding occurs around the axis of a category, linking categories together at the level of properties and dimensions.” (Strauss and Corbin, 1998: 123).

Further, axial coding is undertaken in order to construct a model that details the specific conditions that give rise to a phenomenon's occurrence.

During axial coding I started to piece together and explore more fully the categories that I had developed during open coding. The development of categories is achieved, firstly, by relating categories to their subcategories and then, secondly, by exploring relationships between categories.

Because relationships between categories can be subtle, when I was coding axially I used what Strauss and Corbin (1998) referred to as the 'paradigm' coding process, whereby each category is taken and explored in order to identify:

- The conditions that gave rise to it
- The context in which it is embedded
- The actions / interactions that participants engage in
- The consequences of those strategies

This paradigm approach allowed me to code for explanations and to gain a deeper understanding of phenomena. In essence, the paradigm coding process allowed me to answer questions such as how, who, what, where and when?

During the axial coding process, I took each category developed during open coding and analysed it using this coding paradigm process. By applying these analytical tools, during axial coding, I was able to discover additional concepts and develop and link categories together. This then enabled me to develop more precise and complete explanations about a particular category and the phenomenon that it stood for. This ultimately led me to develop a theory that would explain why women continue to attend for post-MI CR.

In order to demonstrate how I undertook axial coding it is necessary to take each of the emergent categories, in turn, and explore how the data within each leads to a deeper understanding of what each category stands for in terms of the conditions under which it occurs, the context in which it occurs, the action and interactional strategies by which it is dealt with and the consequences of

these actions / interactions. This is a necessary process to undertake if theory is to develop. Diagrams 4.A – 4.F (pages 127-152) depict the process of axial coding for each category. I have also included memos at the end of each category to demonstrate how my reasoning and thinking developed.

4.7.1 Axial coding around the Effects of an MI category

This category was derived from the concepts: Reduced Confidence, Bio-Psychosocial-Changes, Fear, Depression, Disbelief, Shock, Emotional-Upset

When asked about their myocardial infarction all of the 25 participants claimed that the experience had adversely affected them in a number of ways. For the women of the study, myocardial infarction resulted in emotional and physical changes (physical changes were stated as including feelings of tiredness, breathlessness and general fatigue) and these changes impacted upon the women's embodied Self. Further, these changes were to prove significant in explaining subsequent attendance at rehabilitation programmes.

In order to explore the impact of myocardial infarction at the start of all interviews participants were asked to recount their experience of having a myocardial infarction. Starting interviews in this manner enabled both the participant and myself to 'settle-in' to the interview to set the frame of reference for the interview.

All 25 participants were asked to 'Take me through the day' that they had had their heart attack. Participants were encouraged to fully explain how their heart attack had manifested itself. I was interested in gaining an insight into the decisions that women make when experiencing a myocardial infarction. Although all participants had experienced chest discomfort, a number stated that they had been convinced that the source of this chest discomfort was indigestion:

"I asked my husband to go into the supermarket and get me some peppermint, because we had just eaten a beautiful Chinese meal and I thought it was indigestion." (Participant 4)

"I remember thinking that I had indigestion so I drank nearly half a bottle of Gaviscon." (Participant 15)

"I was convinced I had indigestion." (Participant 20)

Many participants did not immediately recognise their chest discomfort as a heart attack. Symptoms were, to use a phrase coined by Cowie (1976) 'normalised'. By this, I mean that by attributing chest discomfort to some other cause, invariably indigestion, participants made their symptoms seem more normal. This could then lead to delays in seeking medical advice:

"I was so sure it was indigestion. I had some milk and went to bed." (Participant 8)

Certain participants engaged in a process of self – medication often taking large quantities of antacids and analgesics:

"I remember taking a couple of Rennie tablets and two aspirin and going to bed." (Participant 12)

"I didn't want to bother anyone, so I just took some paracetamol and some Gaviscon and went to bed" (Participant 23)

However, once the decision had been made, by the women, to seek help for their chest discomfort a subsequent diagnosis of a myocardial infarction resulted in a multitude of experienced emotions, including disbelief, shock, depression and fear:

*"When I got to the hospital I was terrified. I was short of breath and sweaty. I was convinced that I was going to die.
(Participant 7)*

"The journey to hospital was hell. The paramedics were lovely but I really thought it was the end. I felt awful." (Participant 19)

"I can remember being in the emergency room and all these people were milling around, quite frightening. Then my heart stopped and I heard this one nurse shout, 'she's going, quick!' That scared the hell out of me." (Participant 13)

Fear was not limited to the onset of acute myocardial infraction or initial hospitalisation. Upon leaving hospital participants stated that the time from discharge home to the start of their CR was dominated by fear:

"When I left hospital I was terrified that I would have another heart attack. I was scared to do anything" (Participant 2)

"...the whole experience terrified me. I was petrified when I left hospital. I kept thinking I was going to drop dead." (Participant 3)

"I was scared to even go for a walk. Recently, I had a bout of indigestion and I was convinced I was having another heart attack. I was completely terrified." (Participant 16)

One participant claimed that the time after leaving hospital, before she commenced rehabilitation, was akin to living under a sentence:

"I kept thinking it was going to happen again. It's like living a life sentence." (Participant 23)

Feelings of fear were especially related to the pursuit of physical activity once discharged home. Although all members of the sample had been seen by a rehabilitation nurse prior to discharge, this did not stop many fearing physical activity once discharged home:

"I used to be able to walk everywhere and do all of the housework. Once I had my heart attack I became nothing but a shadow of my former self. I felt I couldn't do anything" (Participant 7)

"I was scared to even go out, in case I over exerted myself." (Participant 14)

"I was frightened to go up the stairs or put the Hoover 'round." (Participant 5)

One participant considered the fear of having another heart attack the worst of her worries while waiting to start the CR programme:

"I was really frightened after having my heart attack. I was petrified that I would die in the night, or die on my own if my husband wasn't there with me in the house. This fear was the worse thing for me. Coming to rehab has allowed me to get over it. It is the fear of the unknown, but at rehab you get a lot of information that helps you deal with your fears." (Participant 8)

Some members of the sample claimed that they just could not believe their diagnosis; that they had had a myocardial infarction. This disbelief arose out of a prevailing assumption that heart disease and heart attacks only affect men:

"I couldn't accept that it had happened to me. I phoned my brother, he had a heart attack three years ago and he couldn't believe it either." (Participant 13)

"I just kept thinking, this can't be happening to me, I'm not that sort of person; cancer, tumour, yes, but a heart attack, me?" (Participant 19)

"I was shocked when they told me I was having a heart attack, I just couldn't believe it. It's something you read about happening to other people. Although I had some chest discomfort, I wouldn't have said it was too painful. I really thought I had indigestion." (Participant 10)

Statements such as these suggest that these participants believe some of the historical patriarchal views concerning women and cardiovascular disease; that cardiovascular disease is a male problem.

One of the consequences of living in fear was the subsequent depression that ensued during the weeks following discharge home:

"I was very low after I had my heart attack. I couldn't believe that it had happened to me. I know it sounds silly, but I was very afraid that I was going to suddenly die; that my heart was going to just stop." (Participant 17)

Another participant expressed how she felt she had lost her optimism for the future:

"I was very scared to go out. I would sit around that house feeling very sorry for myself. I don't know whether I was actually depressed, but I seemed to lose all my natural optimism, I felt that I had nothing to look forward to." (Participant 9)

Many members of the group stated that following their heart attack they experienced what they claimed was a form of depression. Although I did not actually measure any claimed depression empirically, established research literature supports the notion that women develop depression following myocardial infarction (Aben et al 2003, Steptoe and Whitehead 2005, Lane and Corroll 2005).

"I suppose you could say that I was a little depressed after my heart attack, that's how it felt any-road." (Participant 12)

"I was very miserable after my heart attack. I can't wait to get back to my old self." (Participant 24)

"I became very depressed after my heart attack. I have been to my GP and I have been put on a mild anti-depressant drug. I definitely feel that this depression resulted from the heart attack." (Participant 14)

Certain members stated feeling 'down' but were not able to explain why:

"I discovered that I had lost my motivation; I just couldn't be bothered to do anything. I don't know whether that was as a result of changes in my body or what? I just felt down. (Participant 11)

"My Husband told me that I had become quite miserable when I got home. I don't know why, but I just felt down in the dumps." (Participant 9)

It must be acknowledged here that phenomena such as: Fear, Disbelief, Shock, and Depression were not only experienced on their own; they were often experienced in combination. One participant grappled with both disbelief and depression following her heart attack. She also states that she felt unable to pursue normal activities:

"I was very low when I left hospital, I just couldn't accept that it had happened to me. I got increasingly fed up with not being able to do anything. Not that I was told not to do anything, I just felt unable to do what I would have normally done. (Participant 22)

As I took the 'Self' to be a subjectively perceived, embodied concept incorporating both psycho-social and biological elements (Kotarba and Johnson 2002) it became clear that for the 25 women who took part in my study their perception of 'Self' had changed, post infarction, and that this altered Self required subsequent readjustment. Such readjustments would later impact upon their decisions to attend CR.

Experiencing an MI affected participant's experience of their body and this was seen in all members of my sample. As such, both the emotional effects of an MI and the physical effects impacted upon their lives and they claimed that the physical changes altered their ability to pursue normal daily activities, such as hobbies:

"My biggest passion in life is gardening. I felt that I was unable to do this after my heart attack as I was told to take it easy. This had made me very sad." (Participant 5)

"I remember my husband saying to me that I should take it easy and avoid cooking. The thing is, cooking is my hobby, I just love it, but I got very tired easily." (Participant 6)

"When I got home I noticed that I was tired all of the time and very weak. I definitely lacked my normal energy levels." (Participant 23)

"I thought that once I was home my stamina would return, but it wasn't until I started coming here that I felt like being physical again." (Participant 16)

Although participants were told by CR staff to 'take it easy' once home, many participants took this much further and stopped engaging in normal physical activities:

"I have always been a very active sort of person, but afterwards I had to give up certain things...walking and playing bowls. I've played bowls for years but I had to stop it. I felt rather resentful of that." (Participant 9)

Following their heart attack participants had to re-adjust their lives in terms of their roles as wives, carers and (grand)mothers:

"Following my heart attack I had to give up looking after my grandchildren, I just couldn't do it" (Participant 15)

"I live with my elderly husband, who's got Parkinson's and I was terribly worried about how I was going to cope; who would look after two of us? (Participant 20)

"I remember thinking; I can't be ill, who's going to look after the house, do washing and cleaning?" (Participant 18)

"When I got home I had to asked my daughter to come home. I felt ashamed about this, I've always been fiercely independent and done my own thing. Having to ask your children for help made me feel terrible, almost inadequate." (Participant 21)

Issues of altered Self and embodiment will be discussed in greater detail, later in my discussion chapter, when I discuss how CR can facilitate a process of restoration (see pages 248-258).

Experiencing an MI also affected participants' confidence. Following their heart attack all 25 participants claimed that they experienced changes in their confidence, confidence to engage in what they considered normal daily activities:

"The thing I remember most about the whole experience was my total lack of confidence." (Participant 12)

"Having a heart attack knocked my confidence terribly." (Participant 13)

Exploring this category it can be seen that it represents the phenomenon of experiencing an MI and relates to how having an MI affected participants' lives. As previous noted, having an MI affected participants in a number of ways, including changes in their life-style, experiencing fear, depression, shock and alteration in Self. Whilst axial coding it became apparent that for these phenomena to occur a participant needed to have first experienced an MI. Everything in this category relates to having had an MI. Thus, the causal

condition that gave rise to the effects of having an MI was the MI itself. Further, axial coding revealed what Strauss and Corbin (1998) refer to as intervening conditions. These are conditions or situations that act upon or alter the impact of the causal conditions. Intervening condition in this category included; beliefs, knowledge and family support. These conditions influenced / affected both the impact of having an MI and, as will be shown later, attendance at CR programmes. For example, some participants claimed that the support that they had received from family members helped them deal with some of the effects of their heart attack:

"My husband has been a great support. When I got home from hospital he wouldn't let me do anything." (Participant 5)

"My daughters have given me a good amount of support, they go shopping for me, help me with my household chores and generally give me support." (Participant 18)

"I didn't want to be alone when I came home. I was so frightened to do anything, in case I had another heart attack. Having my husband around, he's retired, meant I had a lot of support. (Participant 22)

When I was exploring why women attend CR programmes the intervening condition of family support emerged as an important phenomenon: is it not the case that support from family members facilitates attendance at rehabilitation classes? It would appear that for those members of the sample who claimed to have received family support following their heart attack, this support helped mitigate some of the effects of experiencing a heart attack.

Other intervening conditions developed from this category included beliefs and knowledge. If participants held certain beliefs about their health or heart attack then these could impact upon how they dealt with the effects of having had an MI. Many participants, for example, claimed that following their discharge home they were afraid to engage in physical activity and lived in fear. This was because they held the certain beliefs about the nature of their MI and about how that should live, act and behave following discharge home:

"When I got home I was scared to do anything just in case I over did things" (Participant 13)

"I thought it best to rest as much as possible. I gave up doing a lot of the things used to do" (Participant 8)

"Although I knew I shouldn't over do it I tried to keep myself as active as possible. I believed this was so important." (Participant 21)

A participant's knowledge was also seen to impact upon how they dealt with the effects of having had an MI:

"I was given quite a lot of advice prior to being sent home, but I still had a lot of questions. I was unsure of exactly what I could or couldn't do." (Participant 18)

"For me, one of the biggest factors was not fully understanding what a heart attack is. This made me very frustrated. Coming here, though, I've learnt lots." (Participant 9)

It is not possible to ascertain all of the intervening conditions that impacted upon the central phenomenon of this category. However, beliefs, knowledge and family support emerged as intervening conditions that impacted upon the effects of an MI.

The actions employed by participants when dealing with the effects of an MI included, avoidance behaviour, modifying behaviour and a desire to seek knowledge. The fear of having another heart attack, for example, led many participants to avoid certain behaviours. Some gave up engaging in physical activity:

"I used to be able to walk everywhere and do all of the housework. Once I had my heart attack I became nothing but a shadow of my former self. I felt I couldn't do anything" (Participant 7)

Others sought to avoid situations that they perceived adversely affected them:

"I remember thinking about work and how I must avoid the stress of it all." (Participant 12)

"Whenever I get worked up I take myself away and find myself a little quiet corner." (Participant 10)

Another participant claimed to have modified her lifestyle:

"Since coming to rehab, I've given up smoking and I'm trying to lose some weight" (Participant 17)

Participants also stated that they sought answers to their questions, questions related to their heart attack and cardiovascular health:

"I had many questions when I left home and I wanted these answered. The nurse who came to see me on the ward said that I would get the opportunity to ask lots of questions by coming here, and I have." (Participant 8)

These actions and tactics were employed by participants in order to deal with the effects of having had a heart attack. I have collectively labelled these: Managing. The consequence of employing these management strategies was that participants were able to manage and deal with the effects of having had a heart attack, although, in doing so, they had to re-adjust their lives.

Axial coding the above category meant that a much fuller explanation of what the category stood for was developed. Further, additional concepts such as beliefs, previous knowledge and family support also emerged. By exploring conditions, actions and consequences I was able to gain a greater understanding of the category and this was to prove useful when I started comparing and linking categories together. Diagram 4.A below, depicts the axial coding process for this category and illustrates the additional sub-categories that were develop.

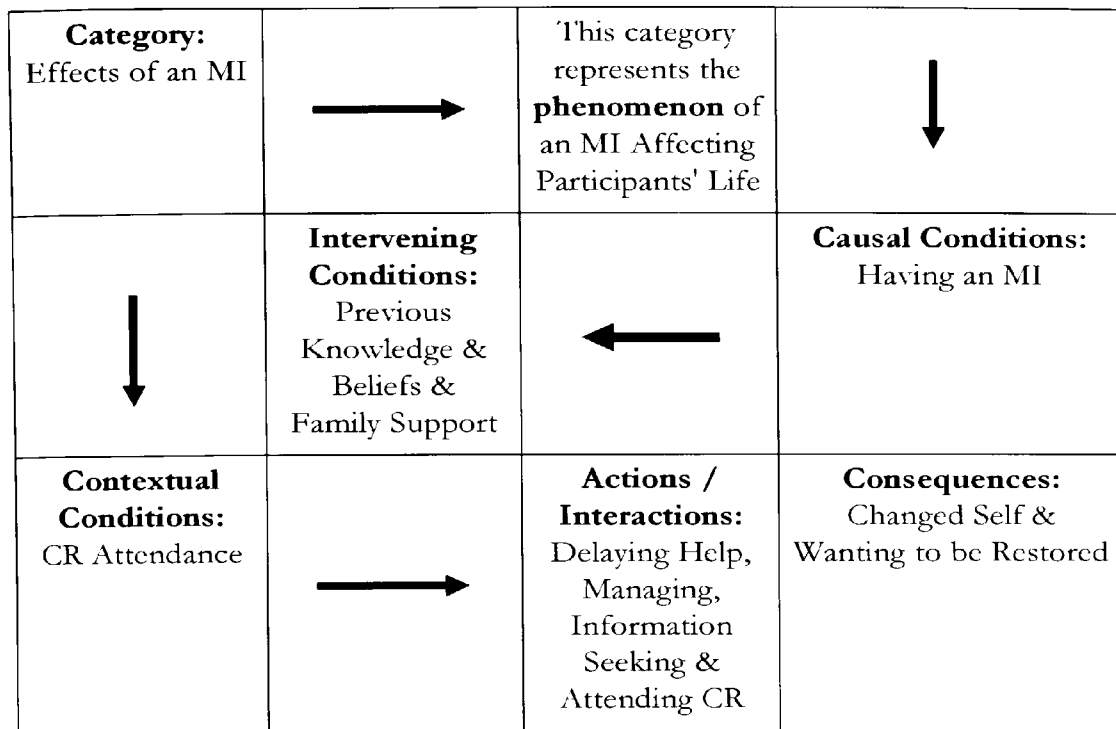


Diagram 4.A: Axial Coding: the paradigm analytical tool being applied to the category Effects of an MI. Presented here with developed sub-categories

Memo 10//5/06

Experiencing an MI had a number of implications for the participants. Having a heart attack induced a sense of fear and led to feelings of depression. These, in turn, could lead to changes in a participant's lifestyle.

If suffering from a heart attack can result in such deleterious effects, then, perhaps, by attending cardiac rehabilitation these effects could be overcome, or at least dealt with? I will explore these issues in any subsequent interviews.

During interviews participants were asked explain how they had been affected by their heart attacks. After exploring this, I then asked questions about how they felt about their CR programmes and why they continued to attend. They were encouraged to discuss whether their rehabilitation programme had helped them and if so, how? Did they feel that classes helped them overcome some of the problems they had endured since having their heart attack? Furthermore, participants were asked to explain why they continued to come back to

rehabilitation week after week. The responses they gave related to how rehabilitation enabled them to address and confront the consequences of experiencing an MI; that their rehabilitation programme helped them to restore their lives.

As can be seen in table 4.4, on page 114, from the analysis and coding of data, four other categories emerged which were related to the participants' attendance at CR programmes. Through the axial coding process I was able to gain a greater understanding of these categories and of how they related to each other. This allowed me to develop my grounded theory.

4.7.2 Axial coding around the Restoration of Self category

This category was derived from the concepts: Bio-psychosocial - Improvement, Increased Sense of Wellbeing, and Revitalisation

During interviews participants had claimed that their heart attacks had adversely affected them. Indeed, recurrent statements pertaining to the adverse effects of an MI were developed into the above category: Effects of an MI. When asked to discuss how they had found their rehabilitation programmes and what motivated them to continue attending, participants claimed that by attending CR classes they felt both emotionally and physically restored, that by attending rehabilitation they were able to address some of the emotional and perceived physical effects of having a myocardial infarction that were identified in the Effects of an MI category.

For the participants in my study, being able to achieve similar levels of activity and wellbeing that they had had before their heart attack was an important goal of their rehabilitation:

*"I'd been told what to expect at rehab by the rehab nurse. She told me that I would do exercises and have classes. I was keen to be as involved as possible because I wanted to get fit again."
(Participant 6)*

*"On my first day I sat down with the nurse and she asked me to set some personal goals. I told her I wanted to be able to walk without getting breathless. I've never been a particularly active person but I was determined to be able to get out and about without having to stop every 5 minutes to take a puff."
(Participant 24)*

"I was scared to do too much exercise afterwards and I was keen to get to rehab and start to get fit. When I say fit I don't mean to be able to go jogging, just be able to do some of the things I've always enjoyed" (Participant 19)

These expectations of rehabilitation, this wanting to 'get fit again' and wanting to be restored were to prove important in developing my grounded theory of why these participants attended their CR.

None of the 25 participants who took part in this study complained that their rehabilitation had not met their personally identified needs or that their rehabilitation had been a disappointment. Rather, participants claimed that their rehabilitation had enabled them to achieve what I have conceptualised as a form of 'Restoration', by which I mean the process of being restored to some form of original condition experienced prior to having their heart attack:

"I had so many questions when I left hospital, my GP didn't have time to answer all of them. I was so down and I wanted to know whether this feeling would go. Coming here (to rehabilitation) has allowed me to ask my questions and I know now that depression after a heart attack is normal and so I'm not so worried now. In fact, I now feel quite normal. " (Participant 5)

"..., for me the worst thing about coming home was the worry that I might die of another heart attack. This stopped me from doing pretty much everything; I was too scared to do anything. Coming to rehab, thought, has helped me a lot. I'm not as frightened and I don't feel so depressed now." (Participant 7)

One participant stated that she felt better after her CR than she had before:

"I feel better now than I ever have." (Participant 15)

During subsequent interviews I asked participants, directly, whether or not they agreed with the idea that by attending CR they were able to 'restore' themselves. The following quote is an example of the replies that I received:

"Definitely, I definitely feel that coming here, week after week, has restored me and in every way. I'm able to do all the things I want. In fact, coming here has opened my eyes." (Participant 20)

This study was not about demonstrating actual physical improvement following CR. What is important, here, is that the participants perceived themselves as being 'physically improved.'

"I definitely feel more like I used to. I go walking again, I am able to do the gardening and I can now enjoy looking after my grandchildren again." (Participant 7)

"Oh, I have found coming here it wonderful. I feel, almost, recharged, like the person I was before I'd had my heart attack (Participant 14)

"I've noticed that I don't get a breathless now as I did when I got home. I've improved, even, since the beginning of my rehab." (Participant 5)

It is reasonable to claim that one can feel improved, physically restored even if (physiologically) one does not actually exhibit any demonstrable physical improvement. In terms of understanding why women attend rehabilitation following a heart attack these perceived feelings of restoration were considered important factors in explaining why women attend CR:

"Since I have been coming to rehab, I feel much fitter than I did before. I use to get breathless and I would get worn out very quickly. Here, though, they allow you to do gentle exercises and this has built me up so that I now feel much more physically better. I just feel generally better for coming." (Participant 10)

"I enjoy all aspects of the rehabilitation classes, but, for me, the best bit is the exercise. This had given me tremendous confidence to become more active again and I have started to enjoy life again" (Participant 18)

"I feel much more able to do all of the things I used to enjoy doing before my heart attack. I wanted to do things, like I would normally do and coming to rehab has helped me achieve this." (Participant 8)

Again, what is important here is not whether participants actually did experience any physiological improvement (although it is possible that this did occur) rather

that participants perceived themselves as experiencing physiological improvements.

Fear of physical overexertion was stated by many of the sample as a debilitating effect of having a myocardial infarction. By attending CR classes participants were able to discover that, in fact, they could undertake certain levels of physical exercise without any adverse effects. The safe environment and numerous members of staff was claimed, by one participant, to have helped in overcoming her fear of undertaking exercise:

"At home, after leaving hospital, I was scared to over exert myself in case I further damaged my heart. Since coming here, however, I've found that I can do quite strong and demanding physical exercise. The monitors and staff give the confidence to push yourself. They wouldn't let anything happen to you, would they?" (Participant 16)

Participants related that they believed that attending CR classes had resulted in them experiencing improvements in their physical ability. Being encouraged to take exercise as part of a CR programme gave the participants the opportunity to discover that they could perform certain levels of physical activity, post-MI, that they had previously perceived themselves unable to perform. This was also one of the main reasons given, by the participants, when asked why they continued attending CR classes:

"I am much more motivated now to get back on track and start getting about again." (Participant 20)

"I enjoy the exercise classes. Having the staff around me gave me the confidence to become much more physically active, something I'd been frightened to do. In fact years ago, they kept you in bed for weeks after a heart attack" (Participant 11)

"When I was stuck at home I wasn't getting any exercise and that's not good for you. The exercise classes have strengthened me both physically and mentally." (Participant 16)

Another asserted her belief that the physical exercise component of her rehabilitation was what had given her the most benefit:

“The best thing about rehab is being able to do the exercises. This cheers me up and gives me strength and the confidence to get back on my feet” (Participant 18)

The feeling of restoration was not limited to being able to undertake exercise or to experiencing physical improvements. Participants also claimed that by attending CR they felt emotionally restored:

“Having a heart attack got me down. I was moping around all over the place. Since coming here, though, I feel much better...better about myself. I've always been the sort of person who looked on the bright side and coming here has helped me greatly.”
(Participant 17)

“...my husband has noticed it as well. He's told me that since I've been coming to rehab I've cheered up. ...I enjoy meeting everyone and the staff are great; always ready to help you.”
(Participant 5)

Empirically determining both the physical and psychological changes that can occur following attendance at CR programmes was beyond this study. Rather, what is interesting, here, is that the participants themselves claimed that by attending CR they experienced physical and psychological improvements. Together, the claims of physical, emotional and psychological changes were conceptualised into the category ‘Restoration of Self’. Indeed, one participant claimed:

“Attending cardiac rehabilitation has allowed me to get back to my old self.” (Participant 9)

Axial coding the category ‘Restoration of Self ‘ also produced much information that was related to the process of restoring-self. When exploring this category I came to the conclusion that the ‘Restoration of Self’ process / phenomenon was related to attendance at CR classes:

“Attending cardiac rehabilitation has allowed me to get back to my old self. I used to love cooking, but after my heart attack I was unable to do it. The rehab has helped, though.” (Participant 2)

*"I feel much more able to do all of the things I used to enjoy doing before my heart attack. I wanted to do things, like I would normally do and coming to rehab has helped me achieve this."
(Participant 8)*

Thus, the casual condition for the phenomenon of restoration was that of CR; the rehabilitation programme provided the context, setting and structure that allowed participants to restore themselves. Strauss and Corbin (1998) maintain that care must be employed when using the phrase 'causal'. When exploring phenomena, and their conditions, causal relationships, themselves, are not sought. Rather, the term 'causal' is used to indicate and identify the conditions that can facilitate and influence phenomena.⁸ I am not claiming that CR caused the restoration process; rather, that attendance at CR programmes facilitated and positively influenced the process of Self restoration.

When exploring this category, further, a number of intervening conditions were also identified. These included not being able to take part in rehabilitation classes and family support. For example, any factor that prevented a participant from participating in rehabilitation could affect their perceived sense of restoration:

"A couple of weeks ago I couldn't attend because I went to my daughters. I was worried that I had missed a rehab session, I don't like missing classes" (Participant 21)

Sometimes participants would not be able to attend a class because of family commitments or transportation problems. Such intervening conditions affected participation at rehabilitation programmes and this, according to the participants, affected their restoration process.

⁸Dey (2002) asserts the view that there are two types of causal condition identified when axial coding: necessary causal conditions and sufficient causal conditions. For certain phenomenon to occur a specific necessary condition is required. For example, in order to be admitted to hospital it is first necessary to have a significant medical problem that warrants hospitalisation: the medical problem would be the *necessary* causal condition leading to hospitalisation, for one cannot be hospitalised in its absence. However, for a person to attend an accident and emergency department all that is required is the suspicion of a medical problem. In this situation, it's not *necessary* to actually have a medical problem merely it is *sufficient* for a person to think they have. In these two situations, both have causal conditions. However, one is a necessary condition the other, merely a sufficient condition.

A number of participants had claimed that they received good family support and when I explored this further it emerged that spouse and close family encouragement was influential in maintaining attendance at rehabilitation:

“My husband has been a great support to me ever since I had my heart attack.” (Participant 4)

*“I don’t think I could have managed without his help.”
(Participant 10)*

*“Sometimes I get de-motivated and don’t feel like coming, but my husband makes sure I do. He’s been a great support.”
(Participant 7)*

One participant claimed that her whole family had given her support and encouragement whilst she was attending her CR programme:

*“We’ve always been a close bunch and they really helped me through the first few weeks of my illness, wouldn’t let me do a thing, and coming here, they’ve been great, a real support.”
(Participant 10)*

In terms of actions and interactions that the participants employ to manage their restoration a number of strategies were identified. The most significant ‘strategy’ related to restoration was the continued attendance at CR itself. Participants willingly engaged with each other and with rehabilitation staff, often discussing aspects of their cardiac health and rehabilitation process. I believe that these interactions facilitated the restoration process. Many times when I was collecting data, I heard participants discuss how they had ‘been good’ and ‘done as the nurse had told them.’ Thus, complying with health advice was another strategy participants employed in order to manage their restoration. Participants also claimed that they had adjusted their diets, given up smoking and had started to resume some of their normal activities. The consequences of these actions and interactions facilitated the process of restoration.

In terms of explaining why women attend CR programmes this process of restoration is important. To discover that they could partake in physical activity and to experience themselves becoming emotionally stronger positively

reinforced participants' belief in their rehabilitation programme. Indeed, as will be discussed, later, in terms of developing a theory to explain women's attendance at CR the category 'Restoration' was to prove central. Diagram 4.B, below, depicts the axial coding process around this category and a memo related to this category:

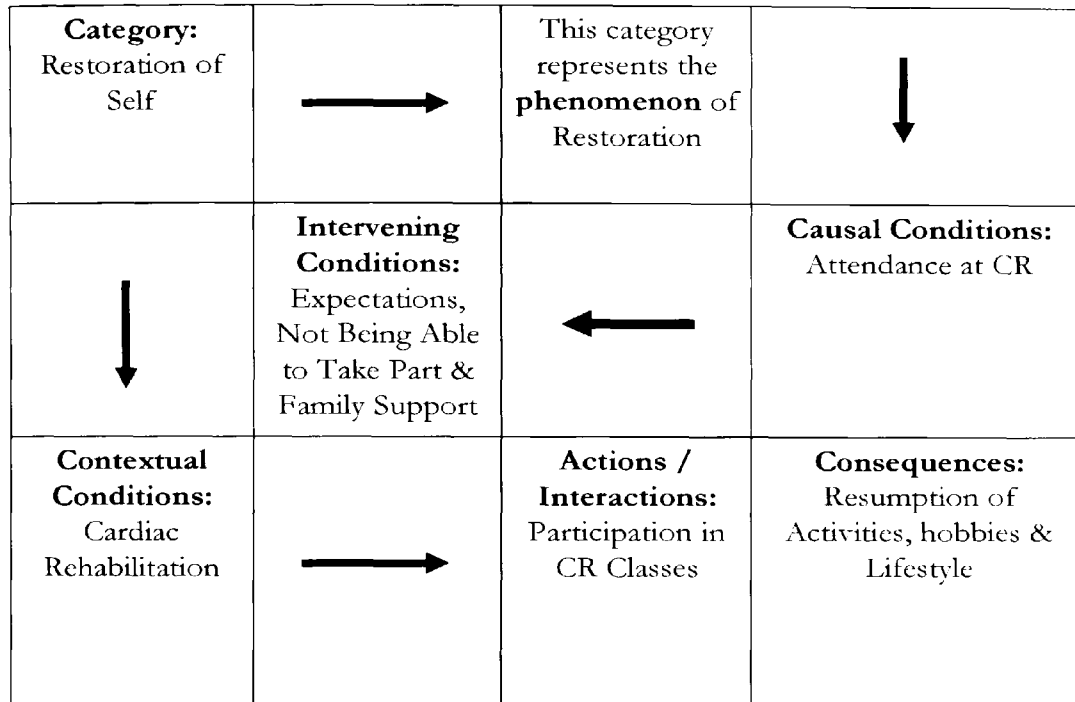


Diagram 4.B: Axial Coding: the paradigm analytical tool being applied to the category: Restoration of Self. Presented here with emergent sub-categories.

Reviewing this category, I believe that by attending cardiac rehabilitation programmes the participants were able to deal with and overcome their problems associated with having a heart attack. I labelled this category as 'restoration' rather than 'overcoming' because, for me, the overarching phenomenon, here, is a process of restoration. Indeed, a number of participants actually expressed the view that they believed that by attending rehabilitation they were able to restore themselves back to a functional level that they had experienced prior to their MI. This is similar to Seymour's (1998) work on the 'remaking of the body.' Seymour suggests that people can survive illness, disfigurement and / or profoundly altered body image and that through rehabilitation such patients are able to re-gain their sense of Self. Further, this process of restoration is interwoven with social expectations and role definitions. Perhaps attendance at cardiac rehabilitation facilitates a form of restoration of Self and maybe this process is what influenced participants' continued attendance at rehabilitation? Whether or not this restorative process best explains why the participants attended rehabilitation will depend upon how it relates to the other categories. This I will explore when I start to integrate and refine my theory and move onto selective coding, later.

4.7.3 Axial coding around the Increased Confidence category

This category was derived from the concepts: Self-belief, Determination, Feeling Positive and Self-Assurance. As such I gave this category the broad categorical label of: Increased Confidence.

When asked to discuss certain aspects of their CR programme, all 25 members of the sample maintained that through attending their CR classes they had regained much of the confidence they had lost in the weeks following their heart attack:

"When I had my heart attack I lost the confidence to do all of the things I had been used to doing before. The cardiac rehabilitation programme has given me back this confidence. I now feel a lot more confident than I did after my heart attack." (Participant 10)

*"I now have the confidence to do the things I used to do"
(Participant 1)*

"The reason I wanted to come on to something like this, was that I wanted to get my confidence back." (Participant 2)

"The rehabilitation programme gives you confidence, I mean I have always been pretty active but coming here has given me a real boost." (Participant 19)

A number of the participants stated that they believed that their increased confidence was as a result of the exercise regimes which form part of post-MI rehabilitation programmes:

"I was very apprehensive about undertaking any form of exercise after my heart attack; I didn't think I could do it. However, I have done the exercises here and I coped really well, I didn't have any pain or discomfort and I surprised myself with how much I could do. I now have much more confidence to go out shopping on my own; to become more and more active." (Participant 11)

"I am a pretty outgoing and confident sort of person anyway, but I feel much more able to go out for my beloved walks with my husband again. I have found the rehabilitation classes a real help, the staff are lovely. The whole experience, especially the exercises, has given my confidence a much needed boost." (Participant 6)

"...The exercise. It is very good. It gives you confidence. You know you always have that doubt in your mind, should I be doing this or that and I have always done my jobs, you know I like gardening and things like that so I mean it gives you that confidence and it's speeded me up a bit. It's been a big help. It is very good." (Participant 18)

One participant valued the exercises so highly she was extremely disappointed when, on one occasion, she was advised not to take part because she had become short of breath and had experienced some mild chest pain. Even though she attended and took part in the educational session that followed her exercise session, she didn't feel that she had achieved anything that particular day:

"I don't feel that I have achieved anything today, because I couldn't take part in the exercise class because I felt a little unwell and the nurse suggested that I sit today's class out. I feel a bit of a failure." (Participant 9)

Previous research has suggested that the one aspect of CR that women do not like is the exercise component, despite the benefits that can be gained through exercising (Schuster et al 1995, Moore and Kramer 1996, Moore et al, 1998, Moore et al 2003). It was surprising, therefore, to discover that the female participants who took part in this study said that it was the exercise element that they most enjoyed about their rehabilitation. Further, participants also claimed that exercising contributed to their perceived increases in confidence. This might be explained by the constant reassurance and advice offered by experienced staff at CR classes, not available when exercising independently at home:

"I feel confident to do exercises in class, you are monitored all the time and the staff are always available." (Participant 11)

"Having the nurses and physios around reassures me and gives me the confidence to take part. Having done some really heavy exercise sessions I am now much more confident to exert myself at home. The worry of dropping dead is disappearing. (Participant 20)

"After my heart attack I lost all of my confidence, I was completely scared to do anything. Coming here I am able to show myself that I can do exercise and that I can push myself, not too much, but enough for me to be able to do the things I use to. The whole programme had given me back my confidence, it's confidence building" (Participant 22)

Whilst exploring the category, 'Restoration of Self', discussed above, I saw that being able to undertake exercise was important in terms of feeling restored' and in terms of conquering fears related to having had a heart attack. However, whilst open and axial coding and conceptualising data I felt that 'Restoration of Self' and Increased Confidence, although related, are different phenomena. Further, these two categories were engaged in a reciprocal relationship, with each facilitating the other. Although discovering their ability to engage in physical activity was influential in increasing confidence, changes in confidence was facilitated, first, by attending the rehabilitation programme and receiving information:

"At home I was scared to do anything. When I first came here I was told exactly what was going to happen and was told what to expect. I have the utmost confidence in the staff and this reassured me." (Participant 15)

Attending CR programmes was what gave participants the increased confidence to take part in exercise (causal condition). Then, once engaged in a programme of exercise and physical activity (actions/interactions) participants' confidence was further enhanced (consequence). This increased confidence then facilitated the process of being restored and so on. Anything that impacted upon this process (intervening conditions, such as not being able to take part, staff encouragement or family support) could affect this process.

It was not just exercise that appeared to affect participants' confidence. Participants also spoke about how they became more informed during rehabilitation educational classes and this seemed to boost their confidence:

"I was taken to a cardiac ward after my heart attack and although the staff were lovely, they didn't have a lot of time for too many questions from me... Here though, at rehab, I was told a lot of information. I really understand now what I can expect for the future and that I can look forward to a normal life again. I am certainly a lot more confident now." (Participant 2)

"When I was in hospital I was overwhelmed with information... The girls here have given me step-by-step instructions. I am now much more knowledgeable about my condition than I was before." (Participant 4)

Attending CR (causal condition) provided the participants with the opportunity to obtain information, thus enabling them to understand their heart condition in greater detail. Such knowledge could then facilitate confidence:

"I was overwhelmed by information. One person would say this and another person would say that. Too much salt, too much fat and too much of this. I didn't know where I was, but Sandra, here, she's been great. She's told me all about my disease and the foods that I should avoid. I understand now not only what's happened to me but what the future could hold." (Participant 21)

“When I got home I tried to explain to my daughters what had happened. But, once I started I realised that I couldn’t explain because I didn’t know. I then realised that I didn’t know what a coronary was, or what a heart attack really is. When I came here I made sure that I got answers to all my questions. I know now what’s happened to me and I am a lot more confident in explaining to people what has gone on. Yes... I am much more self assured now; I now know what I am talking about.”
(Participant 14)

The axial coding paradigm applied to this category demonstrates the relationship between attendance at rehabilitation programmes and its effect upon confidence and is depicted in diagram 4.C, below:

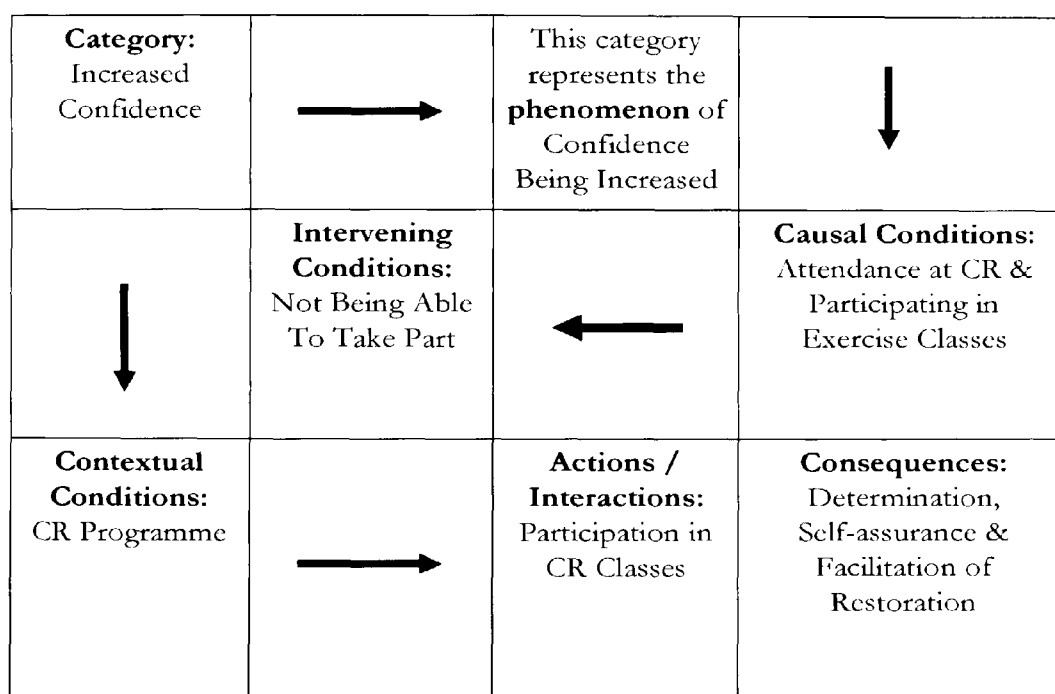


Diagram 4.C: Axial Coding: the paradigm analytical tool being applied to the category: Increased Confidence. Presented here with emergent sub-categories.

As I did with all categories, once I was engaged in the theoretical sampling phase of my research project, I made sure that I explored the phenomenon of Increased Confidence. Once this category had emerged I asked subsequent participants about their feelings of confidence. Replies support the idea that by attending CR programmes participants’ confidence was increased:

"Oh yes, I feel much more confident now. Much more confident to go out and about and do the things I use to. I think that the combination of exercise and education works well. I've enjoyed my rehab immensely." (Participant 25)

During analysis of data it also became apparent that the phenomenon of increased confidence was related to that of determination. Participants expressed the view that they were determined to overcome any personal problems and this determination was gained by attending rehabilitation:

"When I first got here I had a number of problems...I felt very depressed and angry. Sometimes I would become very despondent, but the staff have been lovely and they've encouraged me. I was determined to overcome these feelings and I can't believe how much better I feel now." (Participant 17)

"Any time we felt low or like giving up, the staff would really encourage us. They've really motivated me and made me more determined than ever to get well and back on my feet." (Participant 14)

When I was axial coding and analysing data and developing this category (Increased Confidence) it became apparent that determination could be understood in terms of its relationship to increases in confidence; that confidence could facilitate determination. For example, one participant, who, aside from having experienced a heart attack was also clinically obese, claimed that attending rehabilitation had increased her confidence and made her more determined to combat her health problems:

"I've battled with my weight for years and I been told on many occasion that it would eventually make me ill. Well, now it has. I've had a heart attack. No surprise really. Here, though, they've given me back my confidence, confidence not just to get better, but to take hold of my life and change it for the better. I'm determined not to waste this opportunity to put things right." (Participant 13)

The increase in confidence that participants experienced helps to explain attendance at post-MI CR. Again, although I have no quantifiable 'proof' that participants' confidence was actually increased because of their CR, it was the participants themselves who expressed this views during interviews with me. I

had no preconceived idea that 'confidence' was going to be an issue; it was truly an emergent phenomenon. Once the category had emerged I asked subsequent participants questions that related to it, but 'confidence' as a phenomenon emerged because, for the participants, this was a significant experience.

Increased Confidence proved pivotal in both facilitating continued CR attendance and the development of my 'Restoration of Self' grounded theory.

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Having a heart attack affected participants in a number of ways, which included the fear of undertaking exercise and changes in confidence. What is interesting to me, here, are the issues of how attending cardiac rehabilitation seems to affect confidence and of how 'increased confidence' can facilitate continued attendance at rehabilitation. This increase in confidence seems to result from two key phenomena; gaining information and the realisation of being able to undertake exercise previously thought not possible. What appears to happen is that by attending rehabilitation participants are able to receive health care advice and information. Such information then facilitates participation in exercise and together these two phenomena boost participants' confidence.

4.7.4 Axial coding around the Understanding Condition category

This category was derived from the concepts: Increased Knowledge, Information, Insight, Explanation

Coupled with increased confidence and feelings of being restored, participants claimed that receiving information and gaining knowledge, as part of their rehabilitation programme, enabled them to gain a greater understanding of their condition and of the lifestyle changes needed to prevent another heart attack. Gaining a greater understanding of their condition and receiving health information emerged as significant factors in understanding why women attend for post-MI CR:

"I have found the teaching classes very helpful. I now have a better understanding of what a heart attack is and when I can start doing certain things again." (Participant 7)

"I was told about giving up smoking and fat in the diet, but I was amazed at how many foods are not good for you. The education classes have been very informative." (Participant 14)

Many participants said that they either received very little information about their condition whilst on coronary care units or general wards or that they were so 'overwhelmed' with information that they could not take it all in. However, the information / teaching element of CR provided them with the opportunity to gain a greater insight into heart disease and life after an MI in a more conducive atmosphere for learning:

"The classes here are easy to understand and quite simple to follow. I now understand what a heart attack is, I think, and the instructions I have been given are easy to understand."
(Participant 5)

"When I was in hospital I was overwhelmed with information, but Judith has been wonderful. She's lovely and a great teacher."
(Participant 10)

Being able to ask questions and receive clear and coherent answers was considered important for a number of participants:

"...of course they haven't got time a lot of time to spare on the ward, they were lovely, like, but they were all so very busy. Here, at rehab, though, we can ask what we like and I got a lot more useful information about what happened to me. I've found this information a great help." (Participant 3)

"I have benefited tremendously from the rehabilitation classes. The girls here have been great at explaining things to me."
(Participant 2)

One participant claimed she had found a lot of information given to her before her rehabilitation very confusing so was unable to explain what had happened to her children:

"I wanted to explain to my children all about my heart attack.... They were great, here, at explaining this. I now also know about risk factors and I have discussed these with my children too."
(Participant 4)

The participants' stated belief that CR had increased their understanding of their condition could be considered an example of what Hubley (2002) terms: health empowerment. Nutbeam (1998) defines health empowerment as:

"...a process through which people gain greater control over decisions and actions affecting their health." (Nutbeam, 1998: 354).

Health empowerment incorporates the affective, cognitive and psychomotor domains and consists of two key components, one of which is termed: Health Literacy. This term refers to the attainment of a certain level of knowledge necessary to improve health. Such knowledge is vital in enabling people to improve their health and in enabling them to pursue healthy behaviour. Through the analysis and axial coding of data collected from the post-MI women I am suggesting that participants increased their knowledge about heart disease and their own cardiac event as a consequence of attending their CR programmes (causal condition). A central factor in the process of empowerment is that people are able to use knowledge in order to change their lives:

"I had a number of really important and, somewhat, personal questions that I wanted answers to. I've felt comfortable discussing these, here, and the information I've received has been very helpful." (Participant 19)

"I've been rather confused with all of the information I've been given lately. My doctor told me to lose weight and change my diet. He told me to cut out all of the fat. Thing is, I don't really know what food contain what kind of fat, but Judith has been great. She's told me all about the different types of food and this has made a difference to how I shop" (Participant 12)

"We've had a number of educational sessions on what the heart is and what a heart attack is. I've learnt a lot. I know now that it's not a good idea to be too idle following a heart attack and this has given me the confidence to keep active." (Participant 22)

Many participants claimed that their knowledge of heart disease and of heart attacks was improved through attending rehabilitation educational sessions. Such knowledge was then subsequently employed by the participants in shaping life-style changes and in adopting health seeking behaviour.

To claim that the participants had become 'empowered' is a substantial one and one that will be discussed later on in this chapter. However, whilst the claim to empowerment remains, at present, tentative, participants claimed that they had attained a certain level of knowledge and this was to prove important both in terms of its effect upon increased confidence and in understanding attendance at rehabilitation programmes. Further, this process was not simple. For example, Hubley (2002) maintains that many 'top-down' approaches to providing health information risk becoming disempowering by creating dependency on health professionals. These issues, however, will be discussed later as they belong elsewhere and not in a section on the axial coding phase of data analysis.

Another important phenomenon to emerge through axial coding around the category Understanding Condition was that of the nature of the educational material and the way in which such material was disseminated. Indeed, applying the axial coding paradigm tool I became aware that the educational material was an intervening condition; educational material could either facilitate or hinder understanding of condition. For example, the following participant claimed that after her heart attack she was given a lot of information, advice and reading material. This material, however, was sometime difficult to understand:

"I remember being given a lot of leaflets to read, to take home. I found these confusing. In fact, I had more questions at the end than I did at the beginning. I don't know whether it was because I had just come out of coronary care or whether I fed up or what, but I just couldn't take the information in." (Participant 12)

I asked this participant whether or not she had found the educational material at CR more or less easy to understand.⁹ She claimed that the educational material was easier to understand and made more sense. As she herself stated, this may have been because she was better able to understand and assimilate new knowledge whilst attending CR when compared to the coronary care unit. It became apparent that the type of material used at rehabilitation classes was much better received by the participants than the standard reading

⁹ The educational material at the cardiac rehabilitation classes consisted of classroom discussions, talks, printed materials developed by staff and published material written by British Heart Foundation professionals.

material given out on coronary care units. Certain participants especially appreciated the face-to-face teaching component of their rehabilitation:

"I find some of the written stuff quite confusing. I prefer the teaching session, given by Judith, and the question sessions at the end. I can follow these." (Participant 12)

"Having the opportunity to ask questions has been wonderful, they know so much here and everyone's lovely." (Participant 10)

Indeed, the method of educational delivery was also important. Many participants stated that they enjoyed the manner in which CR classes were delivered:

"I think Judith is wonderful. She makes me laugh and the whole programme is delivered in a light-hearted but informative way. This makes me feel better about asking questions; there's no danger of making myself look silly." (Participant 5)

"I love the education sessions, although there's a lot to take in, it's all done in a very friendly manner and I've enjoyed this. (Participant 25)

Thus, the type of educational material and the manner in which such material was delivered was found to be important in terms of their impact upon the process of participants understanding their condition. Further, the causal condition that facilitated increases in understanding was the actual attendance at rehabilitation itself. Picture 4.D, below, depicts the axial coding paradigm model being applied to this category and the subsequent memo provides my thoughts on this category:

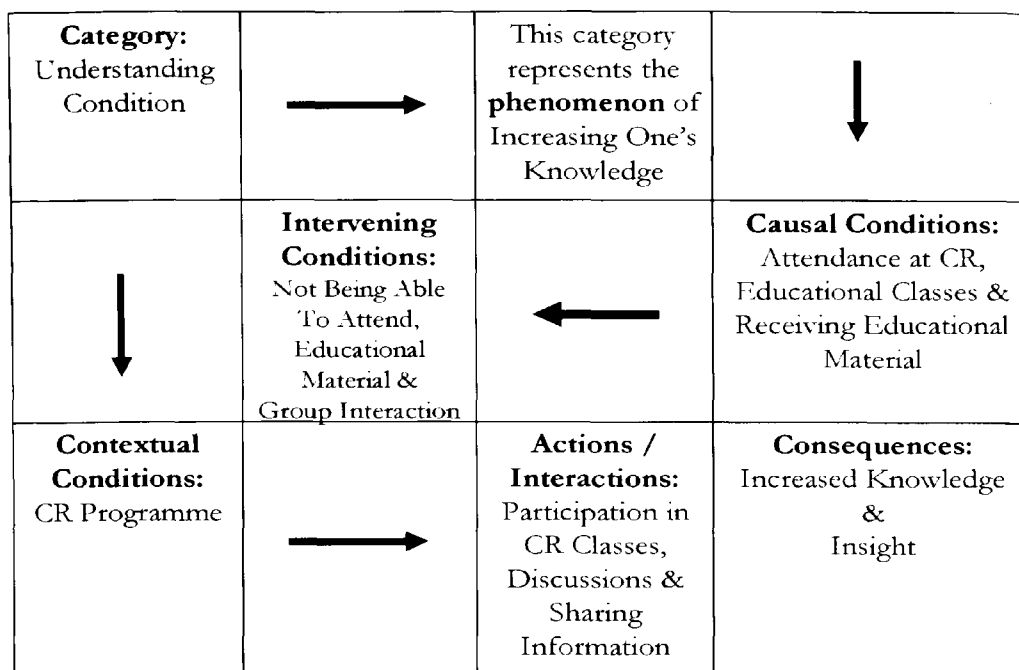


Diagram 4.D: Axial Coding: the paradigm analytical tool being applied to the category: Understanding Condition. Presented here with emergent sub-categories.

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All of the participants had stated that being able to ask questions and being able to receive answers was one of the main features that they liked about their rehabilitation. Gaining information about their cardiac condition, about what had happened to them and about the necessary lifestyle changes that they were being asked to pursue was a significant factor that emerged from the data.

The literature on this issue supports the idea that gaining and receiving information can empower people and enable them to make informed decisions about their health behaviour. Many participants claimed that they had many unanswered questions when they left hospital and that the information they received at rehabilitation did enable them to change certain aspects of their behaviour and lifestyle, be that smoking cessation, dietary alterations or changes in the physical activity. A number claimed that the fear that they had experienced during the following weeks after their heart attack was, partly, due to ignorance; of not being well enough informed. There is certainly literature that suggests that communication between health professional and heart patient is important during rehabilitation. I also feel that the information the participants received did lead to improved health literacy (even though I did not empirically measure this) and that this suggests some form of health empowerment.

4.7.5 Axial coding around the Friendship category

This category was derived from the concepts: Sharing Experiences, Exchange of Information, Companionship, and Sense of Belonging.

When questioning participants about their rehabilitation programme, specifically about what they liked most about it, a number of statements were made that pertained to the exchange and sharing of information and to the phenomenon of the 'shared-experience' of suffering a heart attack. A number of the participants claimed that they had found it beneficial to meet with other heart attack patients on a regular basis, thus being able to share and discuss their experiences:

"It's nice to come here every week and meet with people who have had a similar experience. I know the staff are very knowledgeable but I think unless you've actually had a heart attack you can't really know what it is like, can you?" (Participant 7)

"I remember, once, discussing my experience of having a heart attack with a few of the others. I know it might seem funny, but I was pleased to know that I wasn't the only one who worried about silly things or who was frightened of having another one." (Participant 18)

"I like being able to discuss what has happened to me with other people who have had one too. I've made some real friends, here, and I am going to miss them all very much." (Participant 4)

Being able to identify with others who had had a similar cardiac experience was, therefore, considered important by participants. What developed was a form of health comradeship whereby reciprocally beneficial relationships between rehabilitation members were developed. For example, participants recounted that they often swapped stories, news and pieces of advice with each other:

"I've learnt lots coming here and not just from the staff. We often talk amongst ourselves and swap diet tips and such. Nicola has given me a recipe for a low fat crumble. It's good like that, here, plenty of people to talk to." (Participant 15)

"I'd tried giving up smoking many times, but I've really got to do it now. One of the other ladies here, June, has given me some tips on how to give up." (Participant 10)

"On my first day I introduced myself and then told people about my heart attack. I was curious to know whether other people had experienced the same feelings of helplessness and fear." (Participant 11)

Participants also recounted that they gained support from other members of the rehabilitation group, with participants often encouraging and supporting each other:

"We all help each other and give each other support" (Participant 6)

"I started my rehab with Mary and we've become very good friends. We often support each other and jeer each other along, especially if one of us is a bit down." (Participant 3)

"...I also find the support here, not just from the staff, but also from the other patients very helpful." (Participant 7)

One participant stated that a number of female rehabilitation patients had formed an 'after-rehab-club.' This group of women had decided to continue their friendship outside of the rehabilitation class, by meeting each other on a regular basis once their rehabilitation programme had ended:

"Oh yes, we've organised this little social group. Nothing much; just a few of us. We meet every Wednesday in Cardiff and we've agreed to make it a regular thing once we've all finished." (Participant 15)

However, when I was theoretically sampling, I discovered that certain participants stated that while friendships had proved important, their family's support was more highly valued than the friendships they formed at rehabilitation classes:

"I do enjoy meeting people here and I think it's important to meet with people who have had a similar experience, but I think my husband's support has been more crucial. Without him, I think I would have flagged quite early. He's encouraged me all the way. (Participant 12)

"Although I've met some lovely people, coming every week, my daughters have been my real inspiration. I'm not saying that I could have done it without the rehabilitation classes, programme staff and everything, but my daughters have been tremendous. (Participant 17).

Of the 25 participants who took part, nine were widowed. Although I had considered the implications of widowhood on attendance at CR programmes before I had started interviewing I had not, initially, asked specific questions concerning this. When coding and analysing data, however, it became clear that for those participants who had lost a partner, attendance at rehabilitation provided the opportunity to experience companionship:

"I enjoy the company, here. I've made some good friends and this makes coming here enjoyable." (Participant 19)

"I live on my own...I do get lonely sometime and so, yes, I do enjoy the company and support I receive at rehab." (Participant 21)

"I really look forward to coming every week. It gets me out of the house, you know. I've formed some strong friendships, here; something I've missed since my husband passed away." (Participant 24)

The nine women who were widowed had to suffer and experience their myocardial event without a partner and so the opportunity to meet with similar people in similar conditions proved invaluable during their rehabilitation:

"I often think that the best thing about coming here is meeting people. I'm going to miss this when I leave, you know, the whole group thing. I think it's important to get out and meet people and I've done that here. (Participant 16)

Although I have grouped it under the 'Friendship' category, another significant phenomenon that was related to me was that of the staff. All 25 member of the sample stated, at least once, that they thought very highly of the CR staff:

"The staff here are absolutely wonderful, I can't praise them enough." (Participant 15)

"Wendy has been excellent, she's very knowledgeable and she knows her stuff and she has always been willing to support me throughout the programme. (Participant 4)

When theoretically sampling I asked participants whether they thought the gender of the staff (who were all females with only one male physiotherapist at one of the hospital sites) had made a difference in their praise:

"Oh, I don't think so. I mean, my heart specialist is a man and he's lovely too." (Participant 12)

"Maybe, I don't know. It's certainly easier to talk to a woman about certain things, but the nurse in the hospital who saw to me was male and I thought he was excellent. (Participant 22)

Axial coding this category allowed me to explore the relationship between attendance at rehabilitation and the forming of friendships. As well as noting that the causal condition for this category was, again, CR I also noted the types of information that was shared and some of the factors that seemed to affect the exchange of information. Certain participants claimed family support as more important than friendship while others claimed that forming friendships was the most significant aspect of the rehabilitation. Thus, family / spouse support emerged, here, as an intervening condition to the development of friendships, whilst the sharing of experiences and information emerged as consequences.

Diagram 4.E, below, depicts axial coding around this category.

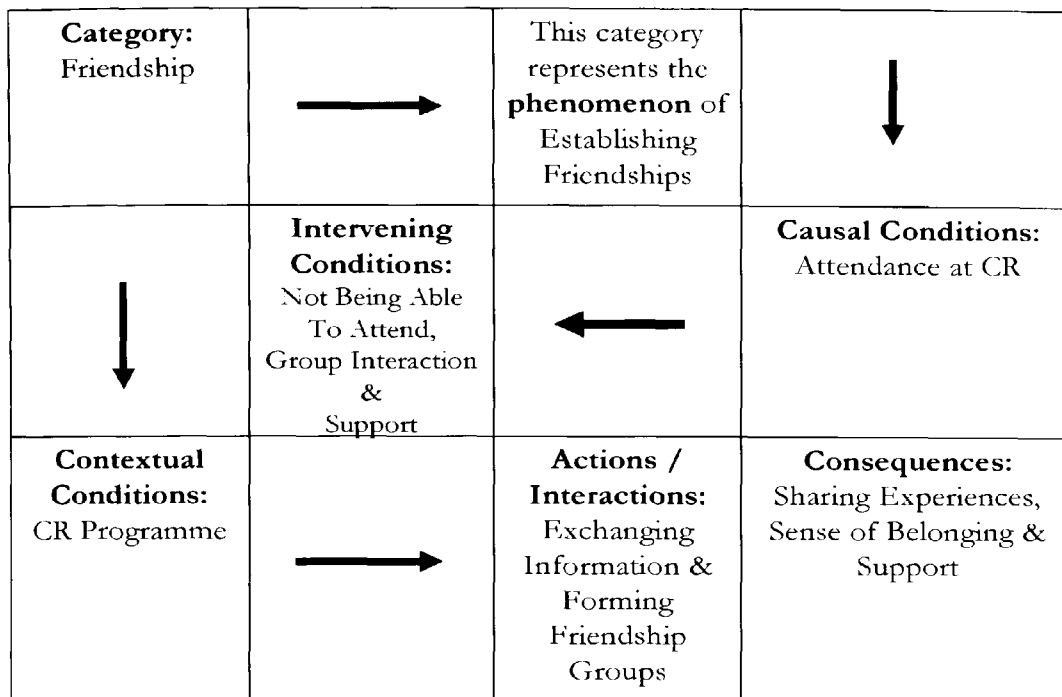


Diagram 4.E: Axial Coding: the paradigm analytical tool being applied to the category: Friendship. Presented here with emergent sub-categories.

Memo 28//8/06

What I found particularly interesting here was that the concept of friendship emerged many times. Many participants stated that being able to meet with people who had had a similar cardiac experience was of benefit. When I explored this I discovered that very strong bonds were formed between members of the rehab group; there was never anybody who kept them self to them self or who did not mix well. Even people who I had originally thought were 'shy' were, in fact, good mixers.

I believe that being able to share experiences and to be able to discover that thoughts and feelings that might have been previously perceived as being 'abnormal' were, in fact, quite normal, highlighted in participants that they were not alone. Sharing experiences provided a means through which participants could support each other and encourage each other. This shared commonality; this shared comradeship was something that participants could not get at home, or even get from rehabilitation staff. The experience of having a myocardial infarction meant that participants had experienced something very significant and I saw this significant cardiac event as the cement that bonded groups together. The comment about the 'after-

rehab-club' is a testament to this.

What was also interesting was that bonds were formed not just amongst the women, but also between the women and the male members of the groups. The previous notion that male rehabilitation patients somehow 'put-off' female rehabilitation patient was not something that I witnessed, either during interviews or during observational data collection.

When developing this category I set out to explore its properties in terms of what facilitated the process of friendship. The process of developing friendships was facilitated through the sharing of experiences; participants would often talk to one and other about what had happened to them and about the problems that they had encountered. However, whereas the sharing of experiences did not necessarily involve the structured giving or receiving of advice, sometimes participants claimed that they would advise other group members or that other group members had advised them. This was a different property to that of sharing experiences. Sharing experiences enabled participants to 'air their feelings' whereas the exchange of information (either giving or receiving information) was more structured. Both these processes helped to shape a sense of companionship and a sense of belonging. I certainly believe that companionship and sense of belonging helped friendships to develop. Further, these friendships and the bonds that were formed between cardiac rehabilitation group members positively affected participants' decisions to continue to attend post-MI CR.

Axial coding allowed me to gain a greater understanding of the developed categories and it allowed me to explore categorical processes. Strauss and Corbin (1998) maintain that one of the best methods of observing structure and process and gaining a greater understanding of categories and how they relate is by collecting and analysing observational data. I now provide an account of how I analysed my observational data and how such data supported and facilitated the process of axial coding.

4.8 Analysis of Observational Data

Observational data were collected to complement and facilitate the understanding of data that were collected via interviews and to aid the development of the emergent categories during axial coding.

Not all the 25 women who took part in this study were enrolled on the same CR programme. Data collection took place over a 12 month period and usually there were only three or four women enrolled on the same programme at any one time or place. The process of analysing observational data is similar to that

of interview data in that one codes observations and develops these codes into categories.

Robson (2002) maintains that when collecting observational data the researcher should, in the first instance, formulate a rough definition of the phenomenon of interest. The researcher then puts forward an initial hypothesis of this phenomenon and then observes a situation and setting to ascertain whether or not the hypothesis fits.

For this study, my 'initial hypotheses' were the emergent categories that had been developed during analysis of interview data. However, I employed observational data not to 'test-out' these emergent categories, but in order for me to develop and explore these emergent categories in terms of their relationships, especially during the axial coding phase of analysis.¹⁰ Diagram 4.5 depicts this process. In the first instance, I considered one of the categories that had emerged from the data. I then observed CR women participating in rehabilitation classes. I would observe anything significant, noting instances (of behaviour, conversations / interactions) that either supported or contradicted what the category stood for. In this way I was able to use observational data to help develop the categories and to explore their relationships.

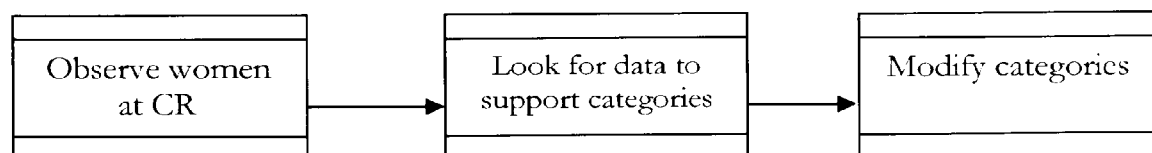


Diagram 4.5: process of observational data collection

In terms of the sequence of events it must be noted that although I am discussing here collecting and analysing observational data after the categories had emerged, in reality these processes occurred simultaneously. Initial categories were developed. These were then modified in light of subsequent interview and observational data, as dictated by the theoretical sampling technique.

¹⁰ To claim that I was 'testing-out' categories would have meant taking a far too quantitative approach to category development. I was not observing behaviour in order to 'prove' that the categories had some form of objective reality. Rather, I obtained observational data in order to help me develop categories, and in order to explore the relationships, actions and interactions between categories.

Lofland and Lofland (1984) suggest that in order to collect observational data one must look and listen for significant phenomena to study and record. In terms of this 'significance' I was interested in anything that would support category development or that would elucidate why the participants attended for CR.

In order to set my observational data into context, it is first necessary to provide a description of the people and settings involved; to provide what Spradley (1979) termed: a detailed descriptive portrait.

The three hospital sites that were involved all had a designated CR unit, specifically designed and including exercise equipment, educational material and audio-visual equipment. Each area was split having a designated exercise area and a 'class-room' area where chairs were positioned around a low level table. In terms of the structure of individual sessions, these were similar in all three sites: patients attended their rehabilitation programme twice a week for 6-8 weeks, depending upon to which hospital they were assigned. During each session they engaged in a structured exercise regime and then moved onto the classroom area where an educational session was delivered by one of the CR professionals. Educational sessions covered subjects such as diet modification, smoking cessation, lifestyle information and sexual health advice.

All members of the rehabilitation staff were female, except for one male physiotherapist who was responsible for running the exercise component at one hospital site.

One of my first observations was that of group formation, with female rehabilitation patients grouping together at the start of a particular session. A group can be defined as:

"A few people who interact with some regularity over an extended period of time and who conceive of themselves as a social entity..." (Lofland and Lofland, 1984 :85)

Although the CR programmes that I visited did have, at any one time, more men than women enrolled on them, it was rare to find (over the 12 months that I spent data collecting) only one woman enrolled on a particular rehabilitation programme. Usually, there were at least three or four women enrolled on the

same programme at the same time. These women would often form strong bonds together and sit, talk, exercise and take part in their rehabilitation together. What I observed was the formation of small female CR groups. The formation of these groups seemed to occur spontaneously; upon arrival at the rehabilitation unit, female cardiac patients would 'group-together' and organise themselves into a separate group from the men. This seemed to occur without any instruction or debate. During exercise sessions the women would exercise together. Then, afterwards, during the educational sessions that followed, the women would sit together. During subsequent interviews I asked the participants that I had observed whether or not they were aware that they had formed such groups and whether it was deliberate. Participants informed me that while it was not 'conscious' or 'deliberate' to form such groups in an attempt to separate themselves from others, it:

"...just feels more comfortable sitting with other women at rehab, than with sitting with the men." (Participant 12)

During one observational session I became aware that a particular woman,¹¹ who formed part of such a group, had had a previous MI. It appeared to me that this particular woman was regarded in high esteem by the other members of her group. Indeed, Giddens (2006) maintains that members of a group often rank one another and possess different degrees of influence over one another. This particular woman was often asked her opinion on certain aspects of the rehabilitation programme and was seen by the other women as an 'expert.' For example, once, during an educational class on the use of statins post-MI, the rehabilitation professional, in this case a pharmacist, was explaining that the effects of these drugs could disappear after a few months of treatment. Upon hearing this, certain women looked to this 'expert' patient for reassurance that, in fact, this was true. It seemed that having had a previous MI gave this woman a certain status amongst the group.

Observing these 'rehabilitation groups' provided supporting data for the category 'Friendship'. It was evident that strong friendships were formed between the CR women. These friendships fostered the exchange of information and provided individuals with support. Whilst observing the women I

¹¹ This particular patient was not a member of my sample.

often saw and heard group discussions where information was exchanged concerning low fat 'cardiac' diets, health advice, tips for giving up smoking and the resumption of hobbies and physical activities. Indeed, one particular participant claimed that she learnt as much from her fellow CR friends as she did from the professional staff.

Another aspect of the CR programme that I observed was that of the question and answer session. These 'Q&A' sessions were held at the end of certain educational classes and were designed to allow for questions and clarification. During such sessions, rehabilitation patients are given the opportunity to ask professional staff questions related to their rehabilitation or any other health concerns. On three separate occasions, at two of the three hospital sites involved, I observed women CR patients engage in an open Q&A debate about sexual intercourse following a heart attack¹². What was particularly interesting during such discussions (indeed, what I found surprising) was that it was the men in the class who were less vocal during such discussions; they looked embarrassed, nervous and they did not engage. The women, however, talked freely in a 'matter-of-fact' manner without any obvious signs of embarrassment or discomfort. This was in spite of the nature of the subject and the fact that the women were in a much smaller group than the men. I questioned members of my sample, those whom I saw engaged in such sexually orientated conversations, and asked them whether or not they felt embarrassed or uncomfortable discussing such a topic in front of such a large group of men:

*"No, not at all. I think so long as it's done in a professional manner then there is nothing to get embarrassed about.
(Participant 14)*

"Maybe a little, but the nurses are so professional and serious that it just seems like a talk on anything else we've had; drugs, diet and such like." (Participant 4)

"No, I grew up with 5 brothers; men don't bother me." (Participant 9)

¹² Current British Heart Foundation guidelines state that sexual activity may resume after two three weeks following an uncomplicated myocardial infarction.

On reflection, I wonder whether the effect of being a member of a female group facilitated the women's engagement in such a discussion. Would a sole CR woman, alone amongst a group of male cardiac patients, have been so willing to engage in such conversations? Further, were these discussions facilitated by the fact that the professional leading the discussion was also a woman? I did ask certain members of my sample whether, in fact, this was the case; whether women professionals made discussing this particular topic easier, as opposed to having men lead such discussions. I was informed, however, that, in their opinion, the sex of the rehabilitation professional was not an issue and that they would have engaged even if the staff member had been male. More generally, I also noticed that for the male members of a particular rehabilitation group, their questioning centred around getting back to work and driving, whereas questions from the women in the class tended to focus upon the resumption of hobbies, household duties, babysitting grandchildren and sexual issues (as above). These differences might be accounted for by the fact that the men tended to be younger than the women and, therefore, employment issues were more pertinent.

In a similar situation, at a different hospital, I witnessed another Q&A session, this time about diet. During this session it became clear that one particular participant held certain views about her diet, especially about the role of fruit in her diet. During discussions it became apparent that she held the belief that fruit was a form of medicine; that fruit, if taken in large quantities, could reverse the effects of a heart attack and prevent another from occurring. She held the view that fruit could make the heart better. What was interesting to me was that when she was expounding this view, during an open discussion, a number of other patients were nodding in agreement. The rehabilitation nurse taking the session then spent some considerable time explaining the difference between fruit forming part of a healthy diet and the misconception that it works as a cardiac prophylactic drug, protecting and mending a diseased heart.¹³ On another occasion I witnessed another female patient asserting that she could not understand how smoking a cigarette, where the smoke enters the lungs, could cause heart disease. Again, the nurse leading this session explained in

¹³ Having spoken with a number of cardiac rehabilitation nurses, I have learnt that patients often hold certain health beliefs prior to the commencement of their rehabilitation and that the 'fruit as medicine' belief is commonly held by both male and female heart patients.

great detail how smoking affects the coronary arteries. By viewing these educational sessions I witnessed how women rehabilitation participants took part in and learn from CR sessions.

I saw the formation of groups and the exchange of information between female patients and female staff as relating to the categories of Understanding Condition and Forming Friendships. It was clear that participants engaged enthusiastically with members of the rehabilitation staff and with each other, often sharing information and advice between them. For me, the bonds formed between female rehabilitation patients were to prove important in the development of my grounded theory to explain women's attendance at rehabilitation. According to the symbolic interactionists Dewey (2007) and Blumer (1986), for example, the first unit of analysis in any given social situation is the interaction of individuals and the discovery of how people create meanings during face-to-face social interactions (Charon 2006). Meanings do not reside in objects but emerge from social interactions and processes.

When observing the women engaging in their rehabilitation, I aimed to explore how they created meanings for their CR programme. For example, the exercise components of rehabilitation involved walking, cycling and stretching manoeuvres. Many participants had stated that they had been afraid to engage in any form of exercise for fear of having another heart attack. During their exercise sessions, a number of female participants stated that being able to undertake exercise in a safe, friendly environment was emotionally and physically satisfying:

*"I came to realise that I could do certain activities and that I probably wasn't going to drop dead from overdoing it."
(Participant 11)*

"For me, I find the exercise sessions very beneficial, my confidence had been improved by doing this. (Participant 7)

*"The exercises are really demanding. Having the staff around gives you the confidence to push yourself, and I found out that I am much more able to do certain things than I had thought
(Participant 1)*

Whilst observing CR exercise sessions, it became clear that for a number of females the exercise regime was viewed not just as a necessary part of their rehabilitation programme but also as a challenge; something to conquer and vanquish. I have already discussed that the exercise sessions were viewed by the participants of my study as beneficial, with many claiming it to be an enjoyable and rewarding component of their rehabilitation, but observing these sessions impressed upon me the fervour and enthusiasm with which exercise sessions were engaged in. In terms of the 'meaning' of exercise for these participants, engaging in exercise came to signify the shared experience of Self restoration; through the conquering and mastery of exercise participants felt emotionally and physically restored. In essence, the capacity to endure and take part in exercise was seen by participants as a measure of their perceived Self-restorative progress:

"When I first started coming here I couldn't walk very far at all. Each week, though, I've gone further and further and I can now complete without any stops. (Participant 12)

"I certainly feel that the exercises have made me stronger and fitter."(Participant 8)

During exercise sessions, staff were always on hand to provide support and encouragement to all members of the group. However, I never witnessed a female rehabilitation patient need coaxing to take part in exercise. Rather, exercise was something willingly engaged in. In terms of the support given during exercise sessions a significant observation that I made was that of spouse involvement. Many of the male CR patients attended their rehabilitation accompanied by their wives, but during the 12 months that I collected data I never saw a female rehabilitation patient accompanied by her husband or partner. Strauss and Corbin (1997) maintain that wives and partners are often collaborators in the preservation of their husband's sense of Self, during an illness.

Through observing post-MI cardiac patients engage in their rehabilitation, I was able to collect data that supported the categories that I had developed during open and axial coding. The purpose of CR is to improve the mortality and morbidity risk of post-MI patients. However, for the participants of my study it

was clear that their rehabilitation took on far broader meanings than this. The twice weekly sessions gave them the opportunity to meet with others in a similar situation and engage in numerous activities. The participants came to view their rehabilitation as a process, through which they were restoring themselves.

The observation data that I collected provided support for the development of the major emergent categories and I found such data invaluable during axial coding. However, category development is only one of the aims of axial coding, the other being an exploration of category relationships. This process ultimately leads into selective coding and the choosing of a core category.

4.9 Relating Categories

Through axial coding, a number of additional sub-categories were developed for each of the categories that emerged during open coding. This process is depicted in diagram 4.6, below. Pictures 4.A – 4.E (pages 127-152) and table 4.6 summarise these sub-categories. Table 4.6 also demonstrates how the sub-categories relate to the paradigm model.

Axial coding around each of the initial categories results in additional sub-categories

Category: Effects of an MI	→	This category represents the phenomenon of an MI Affecting Participants' Life	↓
↓	Interacting Conditions: Previous Knowledge & Beliefs & Family Support	←	Causal Conditions: Having an MI
Contextual Conditions: CR Attendance	→	Actions / Interactions: Obtaining Help, Managing, Information Seeking & Attending CR	Consequences: Changed Self & Wanting to be Restored

Category: Understanding Condition	→	This category represents the phenomenon of Increasing One's Knowledge	↓
↓	Interacting Conditions: Not Being Able To Attend, Educational Material & Group Interaction	←	Causal Conditions: Attendance at CR, Educational Classes & Receiving Educational Material
Contextual Conditions: CR Programme	→	Actions / Interactions: Participation in CR Classes, Discussions & Sharing Information	Consequences: Increased Knowledge & Insight

Category: Increased Confidence	→	This category represents the phenomenon of Confidence Being Increased	↓
↓	Interacting Conditions: Not Being Able To Take Part	←	Causal Conditions: Attendance at CR & Participating in Exercise Classes
Contextual Conditions: CR Programme	→	Actions / Interactions: Participation in CR Classes	Consequences: Determination, Self assurance & Facilitation of Restoration

Category: Friendship	→	This category represents the phenomenon of Establishing Friendship	↓
↓	Interacting Conditions: Not Being Able To Attend, Group Interaction & Support	←	Causal Conditions: Attendance at CR
Contextual Conditions: CR Programme	→	Actions / Interactions: Exchanging, Information & Forming Friendship Groups	Consequences: Sharing Experiences, Sense of Belonging & Support

Category: Restoration of Self	→	This category represents the phenomenon of Restoration	↓
↓	Interacting Conditions: Expectations, Not Being Able to Take Part & Family Support	←	Causal Conditions: Attendance at CR
Contextual Conditions: Cardiac Rehabilitation	→	Actions / Interactions: Participation in CR Classes	Consequences: Resumption of Activities, hobbies & Lifestyle

Sub-categories that emerged from axial coding	Component part of the Paradigm Model
Experiencing an MI (and its consequences on the Self)	Causal Condition
Expectation. of CR / Wanting to be Restored Not Being Able to take Part/ Barriers Educational Material Family / Friend Support Delay in seeking Help CR Staff	Intervening Conditions
Continued Attendance in CR Classes Information seeking / Sharing Group Interaction	Actions / Interactions
Increased Understanding / Knowledge of Condition Improved Confidence Formation of Friendship Resumption of Activities Empowerment Restoration of Self	Consequences

Diagram 4.6 process of axial coding resulting in sub-categories

Sub-categories that emerged from axial coding	Component part of the Paradigm Model
Experiencing an MI (and its consequences on the Self)	Causal Condition
Expectation. of CR / Wanting to be Restored Not Being Able to take Part/ Barriers Educational Material Family / Friend Support Delay in seeking Help CR Staff	Intervening Conditions
Continued Attendance in CR Classes Information seeking / Sharing Group Interaction	Actions / Interactions
Increased Understanding / Knowledge of Condition Improved Confidence Formation of Friendship Resumption of Activities Empowerment Restoration of Self	Consequences

Table 4.6 Sub-categories that emerged from axial coding

By coding around the axis of one category at a time and by applying the paradigm coding process (causal conditions, intervening conditions, actions/interactions & consequences) categories were developed to form more precise and complete explanations about the phenomena they represented.

The next step in the process was to relate categories and sub-categories together; to explore their dynamic interrelationships in order to answer the question: how do sub-categories and categories relate to each other and to the central phenomenon under investigation; continued attendance at post-MI CR programmes? To do this, I listed all of the sub-categories that emerged via axial coding. Doing this allowed me to build my conceptual paradigm model. In relation to the central phenomenon: attendance at post-MI CR programmes, I was able to build up a theoretical relationship between sub-categories identifying those that were causal conditions, those that were intervening conditions, the actions and interactions undertaken and the consequences. As a result of this process the model, on page 170, was developed.

However, during this process I experienced a number of problems associated with the axial coding and these are discussed in the memo below:

Memo 15/7/06

Up until now I have found that the Straussian grounded theory method has worked well. The process has allowed me to develop concepts and to then develop these into broader categories. However, I have really struggled with the axial coding process. At first this seemed like a straightforward process, but I have found axial coding far more difficult than I had originally thought. Firstly, when axial coding around each category I got confused and I lost sight of what the central phenomenon was: was it attendance at cardiac rehab, or the central phenomenon of what each category stood for? Secondly, I just couldn't differentiate between causal conditions and contextual conditions (as explained by Strauss and Corbin). I felt like I was going around and around. More seriously, I felt that I was forcing my data into a far too rigid framework. In fact, I now fully appreciate Glaser's criticisms of axial coding and why he so vehemently opposed its use: it did force my data into a very rigid and structured framework and this took me a long time to fully understand. Eventually, though, when I stood back from the process and started to ask: what is going on, here, things started to come together. I started to see that certain categories were causes that others were actions / interactions and yet others were consequences. Once I axial coded around all the major categories the model just seemed to fit. I guess, therefore, that Strauss was right after all.

Once I had started to axial code and explore categories along their axis and once I had coded and identified sub-categories for each major category, I started to ask broader questions, specifically: do the major categories relate to each other and if so how? Swanson (1990) suggests that when exploring category interrelationships one should consider asking the following types of question:

- How do the categories and sub-categories relate to each other?
- Is one (sub)category a condition of some other (sub)category?
- Is one (sub)category a cause, a context, or consequence of another?

By asking and answering these questions I was able to build up relationships between the categories and sub-categories that had emerged during open and axial coding.

I then explored relationships. Firstly, I clearly reminded myself about what my research was about. It was about, i.e., continued attendance at post-MI CR programmes. I then placed this central phenomenon at the top of a piece of paper:

Central Phenomenon: Continued Attendance at post MI CR programme

Then I explored the causal conditions: what would cause, necessitate / require attendance at a CR programme? For my sample, the causal condition was that of actually experiencing a myocardial infarction; having a heart attack necessitated attendance at a rehabilitation programme.¹⁴ I, therefore, placed the causal condition of 'Experiencing an MI' under the central phenomenon box:

Central Phenomenon: Continued Attendance at post MI CR programme

Causal Conditions
Experiencing an MI (and its consequences:
altered perception of Self)

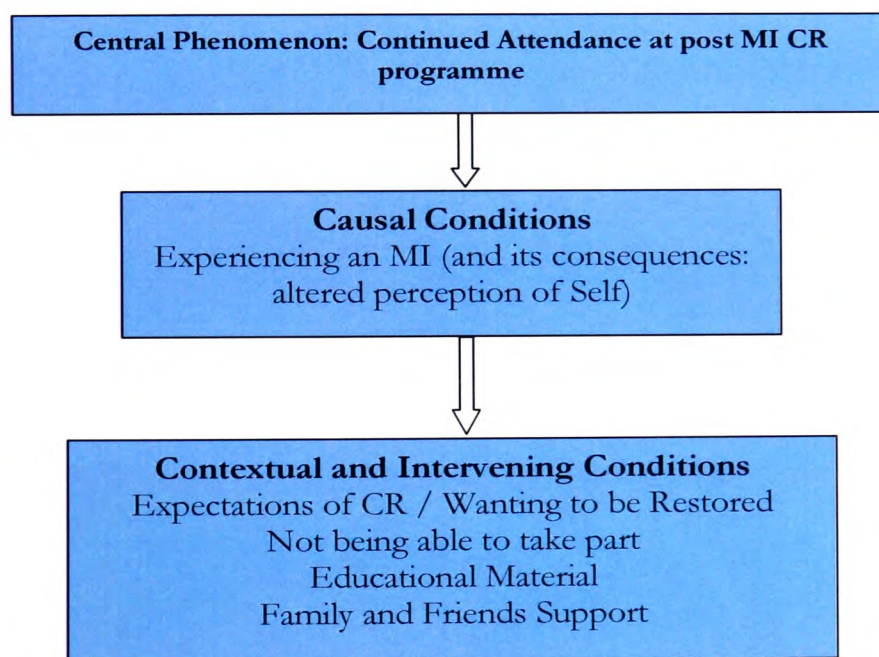
Next, whilst continuing to explore the sub-categories that emerged through the initial stages of axial coding, I also reviewed the conditions that affected attendance at post-MI rehabilitation programmes. These intervening conditions either facilitated or hindered attendance. For example, participants'

¹⁴ Of course, this might seem obvious, but whilst having a heart attack was what initiated attendance in the first place continued attendance was also related to other phenomena.

expectations of their CR and their desire to be restored emerged as intervening conditions that facilitated CR attendance. So too, did the support received from family and friends. Participants also stated that the manner in which rehabilitation classes were delivered and their access to certain educational material were also important and these, too, emerged as facilitative intervening conditions. These intervening conditions, it emerged, were influential in maintaining attendance at post-MI rehabilitation.

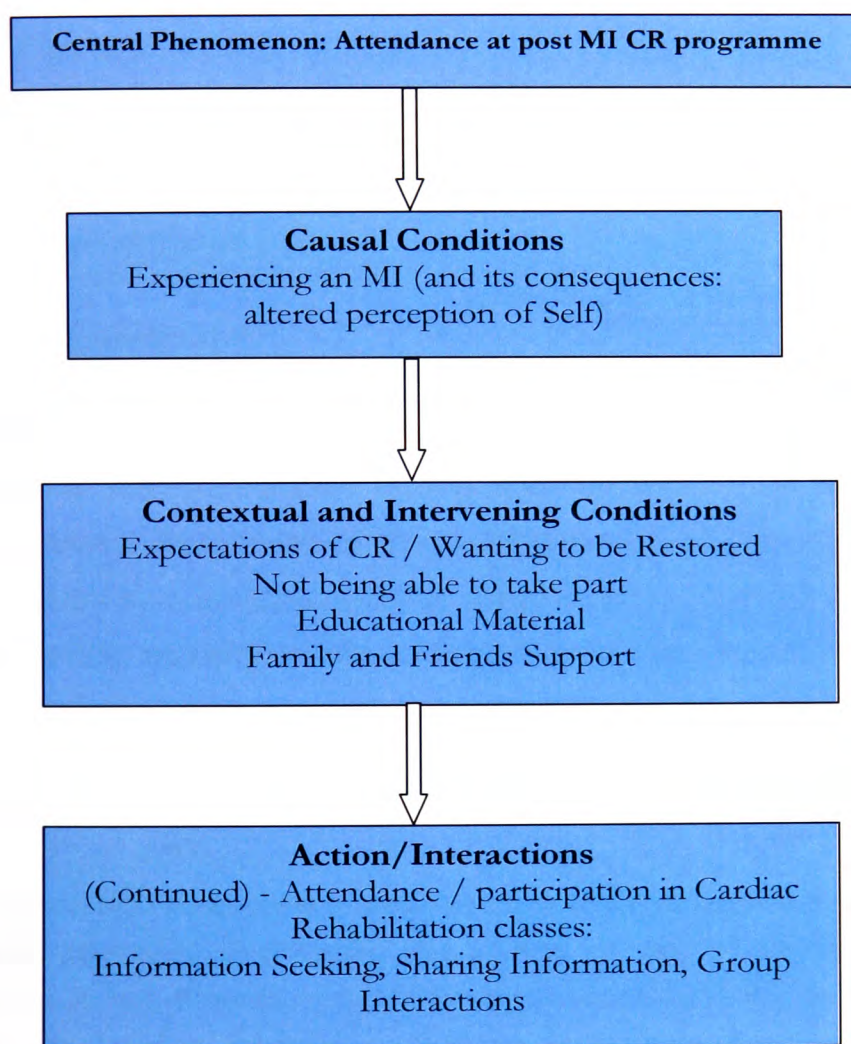
Sometimes, however, participants were unable to attend for their rehabilitation because of transportation problems or family commitments. Thus, these intervening conditions (not being able to take part) emerged as conditions that did not facilitate CR attendance.

Intervening conditions were then placed under the causal conditions box:



As I used the paradigm model process as depicted by Strauss and Corbin (1998) I also explored participants' actions and interactions. Through axial coding it emerged that the sample of 25 women in my study engaged in a number of actions and interactions that were related to attendance at rehabilitation. For example, whilst attending rehabilitation classes participants engaged in exchanging information; participants willingly engaged with each other and with rehabilitation staff, often discussing aspects of their cardiac health and rehabilitation process. The participants both sought and gave advice

and this information was perceived to be important. Participants also formed groups and friendships and this, too, facilitated the exchange of valued information, at the same time providing support and encouragement when needed. These (inter)actions were subtle in comparison with other aspects of the paradigm process model, but they were important, nonetheless, in understand CR attendance, especially the consequences of these (inter)actions:



The last term used in the paradigm model is that of consequences. Strauss and Corbin (1998) maintain that the actions and interaction taken by people result in consequences. In this study the consequences of attending for post-MI CR resulted in the following:

- Increased confidence
- Increased knowledge about condition
- Formation of friendships
- Resumption of activities
- 'Restoration of Self'
- Empowerment

What I noticed, here, was that these consequences contained many of the categories that were developed during open coding. I then came to appreciate two things: firstly, that some of the categories developed during open coding were, in essence, consequences of rehabilitation attendance and, secondly, that axial coding actually works in that it facilitated theory development. See memo below:

Memo 23/07/2006

Through axial coding I have come to see that some of the categories that I develop during open coding (Increased Confidence, 'Restoration of Self', Understanding Condition, Friendship) are, in fact, consequences of attending for post-MI rehab. This is what happened as a result of attending for rehabilitation. Perhaps, contained somewhere here, is a reason why these women attended? I'll have to explore this further, but something here is suggestive as to why they attended. Increased confidence? Understanding? Perhaps there is a broader / higher categorical label that could explain attendance? I'll know more once axial coding has finished.

What I am also appreciating now is that axial coding does work. It has taken time, but things are beginning to work out; things are becoming much clearer.

I decided to group these consequences together. In terms of coding what these consequences were about, I considered what they signified as a group and decided that they signified 'Empowerment' meaning explicitly the power to take control over one's life; to organise one's life, to understand one's life and to use information to make informed decisions about health. The women who took part in this study claimed that by attending CR they perceived themselves to be more confident, to have gained a greater understanding of their condition and to have 'restored' themselves. Further, participants claimed that attending CR allowed them to learn from others and to address the lifestyle effects of having had a heart attack. These consequences of rehabilitation attendance (increased knowledge, confidence etc) signify that the women had become empowered, empowered to be the women they once were, before their myocardial infarction; by attending rehabilitation they gained insight into their lives and were given, and took, the opportunity to change their situation.

I then placed consequences (empowerment) in a box and placed it under actions/interactions:

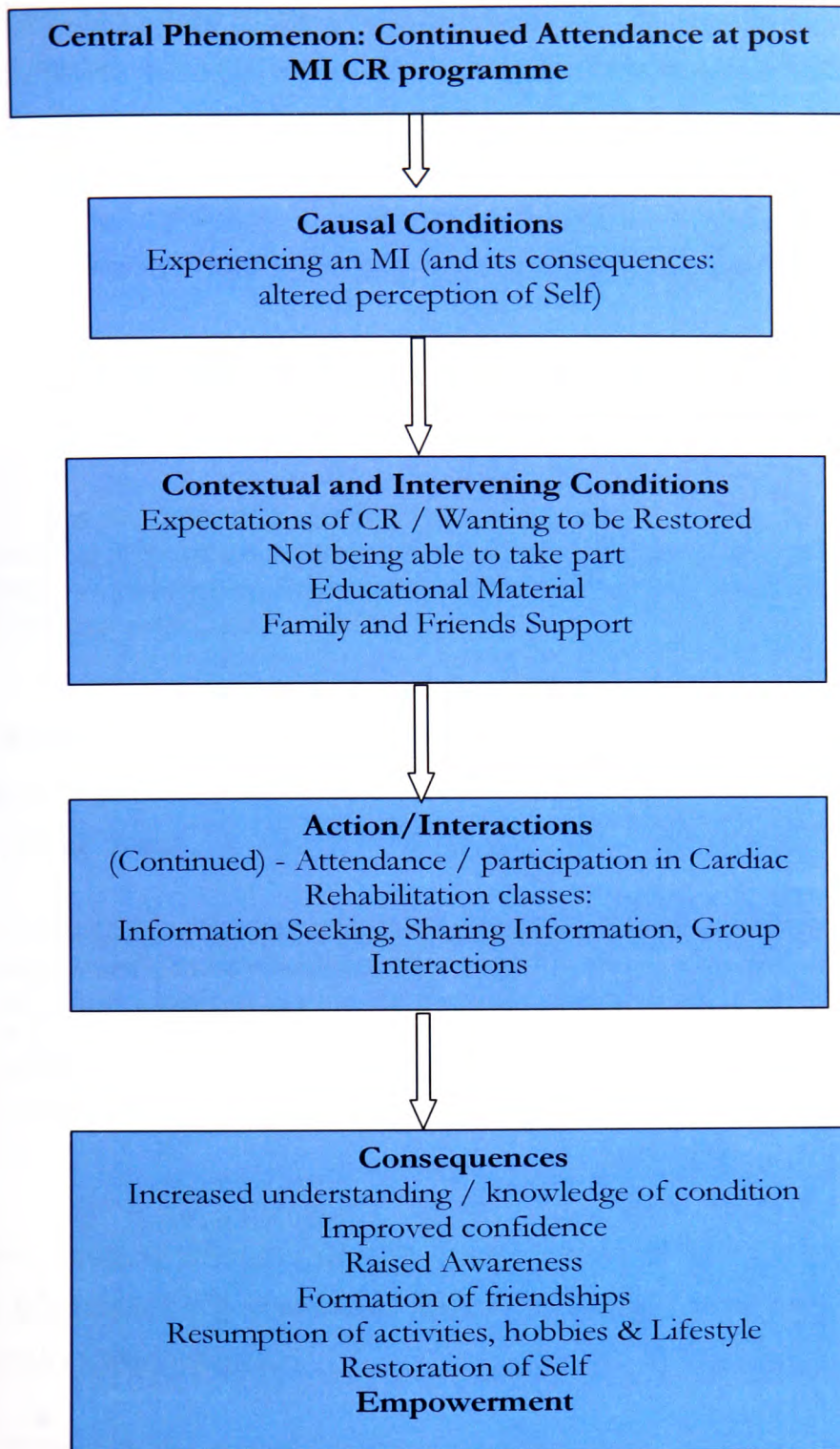


Diagram 4.7 Paradigm model

As a result of open and axial coding a number of categories and sub-categories were developed. Considering these categories in relation to the central phenomenon of attendance at rehabilitation the relationships, depicted in diagram 4.7, were developed.

The third and final step in the coding process involved selecting a core category that would make sense of what was going on; that would enable me to develop a theory to explain why the 25 women in my sample attended for post-MI CR.

4.10 Selective Coding

Selective coding is about choosing a central (or core) category, and relating all other categories to it in order to build theory. Selective coding is the process of integrating and refining theory. Strauss and Corbin (1998) define selective coding as:

“...the process of selecting the core category, systematically relating it to other categories, validating those relationships and filling in categories that need further refinement and development (Strauss and Corbin, 1998: 116).

During this stage of coding, it is necessary to choose a core category and to develop a single storyline around which everything else is draped. Strauss and Corbin (1998) state:

“Theorising is an act of constructing (we emphasise this verb as well) from data an explanatory scheme that systematically integrates various concepts through statements of relationship. A theory does more than provide understanding or paint a vivid picture. It enables users to explain and predict events, thereby providing guides to actions.” (Strauss and Corbin, 1998: 25).

The core category should not only make sense of what is going on, but also provide the basis for a ‘grounded’ theory to explain what has occurred. Strauss and Corbin (1998) maintain:

“Although the central category evolves from the research, it too is an abstraction. In an exaggerated sense, it consists of all the products of analysis condensed into a few words that seem to explain what ‘this research is all about.’ ... This explanation is our interpretation of what the research is all about...” (Strauss and Corbin, 1998: 146).

The core category, then, should explain the central phenomenon; it should explain what the research is about and what has gone on. Choosing a core category can be a difficult task, especially if two or more categories emerge as

possible candidates. At first, the decision to privilege one category over all others seems quite arbitrary. However, if competing categories do emerge, as they did in my study, then Strauss and Corbin (1998) suggest that:

"The way to handle this problem is to choose one phenomenon, relate the other categories to it...then write it as a single theory. Then in another paper... you can take up the second idea and do the same. (Strauss and Corbin, 1998: 121-2).

Doing this allows the researcher to choose the most appropriate category to form the core category through which theory will be developed. Thus, although identifying the core category relies on the judgment of the theorist, by considering all possibilities the most appropriate core category will, eventually, emerge.

The memo, below, describes some of problems I encountered when I was involved in selective coding:

Memo 19//9/06: Strauss and Corbin suggest that, sometimes, researchers, especially the novice researcher, can get flooded with data and find that they are unable to obtain the 'distance necessary to commit to a central idea.' I certainly experienced this problem once I had started trying to select my core category. Having axial coded I understood my data in much greater detail and I had a feeling about what data were about, (restoration, overcoming, empowerment, restructuring) but I just couldn't seem to commit to a central core. I was getting somewhat confused; what is going on in the data? What best explains what was going on? Is it not possible that more than one core best explains what is happening? Indeed, do I need only one core category? I came up with a number of categories, all of which (I thought) explained what was going on; all of them seemed to me to explain why the women attended for post-MI cardiac rehabilitation. I spent a long time exploring what might become the central and core category. In such a situation, Strauss and Corbin suggest that the researcher sit down with a supervisor, teacher, colleague or some subject expert in order for them to help the researcher brainstorm and identify the core category. Eventually, I sought the expertise and experience of Juliet Corbin, herself, asking her advice on the selection of my core ('Restoration of Self') category and, later, on my developing (restorative) grounded theory. By doing this, I was able to obtain a degree of 'external validation' as to the credibility of both my developed core category and my evolving theory. These email communications can be found in appendix eight. After extensive exploration I decided upon a core category I was happy that this category should form the core of my theory.

4.10.1 Storyline Memo

To help me identify the central category, during the time when I was involved in the selective coding process, I wrote what Strauss and Corbin (1998) refer to as the Storyline Memo. This was later developed into a storyline narrative, which will be discussed in the next chapter.

The storyline memo is basically an outline told in the form of a brief story of what is going on. It helps to answer questions such as: what is the main issue occurring here? What keeps striking me over and over? First, I identified and briefly described the story, in memo form. Then, I developed the story using the categories that emerged through coding, as recommended by Strauss and Corbin (1998):

Memo: identifying and describing the story

This study was about trying to identify why women continue to attend for post-MI cardiac rehabilitation. I interviewed 25 women asking them about how their heart attack had affected them and about their cardiac rehabilitation, specifically what they liked or disliked about it.

I obtained 25 interviews which, when typed up, were, in reality, 25 narratives on heart attacks and the process of rehabilitation following a heart attack. The stories told to me were about becoming ill and then about overcoming this illness, getting better and being restored. I will explore the issue of illness narrative construction in greater detail, later, as I believe the formation of a restorative / restitution narrative provides much information into the actual process of overcoming and of being restored.

What struck me was that these women had lived 'normal' lives and that their heart attacks affected them all in a number of similar ways. Having a heart attack had a number of implications for these women and for some this experience led to significant changes in their everyday life and sense of Self. Attending post-MI CR provided these women with the opportunity to consider their heart disease and to meet with other women who had also suffered a similar life-changing event. By attending rehabilitation the women were able to deal with the consequences of their heart attack, to overcome and address personal issues and this, ultimately, led to a perceived sense of being restored, of being able to enjoy certain activities again, a sense of being the person they were before their heart attack. Attending cardiac rehabilitation meant no longer having to live in fear, no longer having to live with little knowledge about what had happened to them. Rehabilitation gave them a sense of 'meaning' and a means to achieve personal goals. Essentially, by taking part in rehabilitation, the women were empowered and this Empowerment facilitated the restorative process and this led to the

'Restoration of Self'.

I acknowledge that there are many different feminist methodological approaches and that there is no single right way to do feminist research or produce feminist theory. However, I also acknowledge that, no matter what feminist approach is taken, 'a feminist theory' should address issues of empowerment, emancipation and the issues of 'giving voice' to women. It is not unreasonable for me to claim that the 'Restoration of Self' process that I am developing, here, is emancipatory, that the Self restorative process emancipated the 25 women from the effects of having an MI. They were empowered, attending rehabilitation classes gave them the knowledge and confidence to change their situation and so empowerment was experienced, to varying degrees, by my sample. In terms of 'giving-voice' what I ultimately ended up with was 25 restorative narratives. Reading these made me realise that the Self is related to story telling and that story telling, itself, is related to the process of restorations. I will have to explore these issues in greater detail, later.

As can be seen from the above memo, during the course of selective coding and the development of my storyline memo two possible core categories emerged:

- Empowerment
- 'Restoration of Self'

I was unsure as to which of the two potential core categories best explained why the women attended for post-MI CR and so I needed to explore each in order to choose the one that would best form the central category.¹⁵ Strauss and Corbin (1998) state a number of criteria for choosing a central category and these helped me to select my eventual central category:

- 1) It must be central, that is, all other categories can be related to it
- 2) It (or its indicators) must appear frequently in the data
- 3) The explanation that evolves by relating the categories is logical and consistent

¹⁵ Glaser would object to this 'best-fit' approach when choosing a core category. He would assert that the core category should emerge, naturally and 'unforced.' Considering two (or more) core categories for best-fit is another example of the differences between Glaserian and Straussian grounded theory.

4) The name or phrase used to describe the central category should be sufficiently abstract that it can be used to do research in other substantive areas, leading to the development of a more general theory

(Strauss and Corbin, 1998: 147)

I considered these criteria when I was exploring both Empowerment and Restoration of Self as the core category for my theory.

4.10.2 Empowerment as Possible Core Category

When considering 'Empowerment' I explored the following possible theory: The women of my study had become empowered whilst attending for rehabilitation and that this empowerment was consciously perceived and best explained why they continued to attend for rehabilitation. I was mindful of what Maynard and Purvis (1994) say about empowerment:

"Some of the glib ways in which 'empowerment' is used in discussions of feminist research with women concern us greatly. They reflect either an arrogance of viewpoint or a failure to think through what our 'power' consists of."
(Maynard and Purvis, 1994: 36).

What I meant by empowerment, in this study, was the ability of the women to gain knowledge, gain greater control over their lives and to be able to make informed choices about their health. Informing my notion of empowerment was the definition of health empowerment as stated by Nutbeam (1998):

"Empowerment is...a process through which people gain greater control over decisions and actions affecting their health."
(Nutbeam, 1998: 354).

Stein (1997) maintains that empowerment is about self-determination incorporating reflection and action.

In my study empowerment meant being able to gain knowledge and using this knowledge to make informed decisions and life changes. I had already grouped together a number of consequences as indicating empowerment and was not, whilst engaged in selective coding, trying to justify the claim that the women had experienced empowerment (the Consequences box of the paradigmatic model, I believe, does demonstrate a form of empowerment). Rather, during

selective coding, I was exploring whether the empowerment category could relate to all the other categories and lay central claim to explain continued rehabilitation attendance in women. To assist in this task, I explored certain feminist theories. For example, De Beauvoir (1974) claims that the body is fundamental in creating a person, in creating and maintaining Self. It is through the body that a person becomes aware of oneself and experiences oneself. De Beauvoir (1974) maintains that the female body has traditionally been seen as second-rate, when compared to those of men and that feminine history is characterised by subjugation, little freedom and male oppression. Indeed, she claims that:

"Transcendence' describes the ability of the individual to freely pursue a project thereby acting on the world in an important way. 'Immanence' is the condition of endless repetition of mundane tasks." (De Beauvoir, 1974: 34).

De Beauvoir (1974) uses the term immanence to refer to women's social immobility, their constraints and repression. Due to the repression of their role, women may then be denied the opportunity to move towards transcendence, i.e., to achieve socially, to develop creatively or improve their situations. According to the existential philosophy of De Beauvoir, true freedom is attained by moving from this fixed state of 'immanence' towards the feminist ideal of 'transcendence' through action and empowerment, which allows women the opportunity to free themselves and achieve greater equality.

Given the existentialist nature of De Beauvoir's feminist theory, it necessarily challenges all notions of a fixed 'human nature' and, as such, De Beauvoir claims that women are just as able as men to choose to move from a state of immanence to one of transcendence. Thus, women can, existentially, choose to emancipate themselves from their situations. To do this, however, women must first empower themselves. A necessary first step in this process is for women to reflect upon their situation. By reflecting upon their situation, women are able to see their situation clearly and then choose to exercise their freedom and move towards transcendence. This is what happened to the research participants in my study. By attending CR classes, the participants were forced to confront and reflect upon how having an MI had impacted and affected their lives. In doing so, this forced them to reflect upon their situation as MI sufferers. Attending CR

programmes, therefore, highlighted the conscious need for them to overcome and improve their situation.

Whilst attending CR programmes, the women become aware of their increased confidence, increased understanding and Self restoration. The CR programme gave the participants the opportunity to set goals, engage in a process of education and it highlighted multiple future possibilities.

By attending CR programmes, participants were able to move away from being what De Beauvoir (1974) called 'un-self-conscious beings' (beings incapable of freedom and who are chained to immanence) to beings capable of transcendence. Indeed, the entire process of CR can be seen to help resolve the tensions and conflict between transcendence and immanence in post-MI women; through a dialectical process that involves CR staff, female patients and the rehabilitation environment, women, traditionally thrown into immanence, were capable of self-conscious transcendence.

To claim that the women of my study can become 'empowered' by attending CR classes is a grandiose statement but is supported by data from this study.

If my claim can be accepted; that the actions and interactions engaged in as part of a CR can result in a form of empowerment then surely this (Empowerment) best explains why the participants of my study attended and continued to attend for their rehabilitation; that their sense of empowerment; their sense of being able to change their situation, achieve goals and feel restored was what influenced them to attend for rehabilitation? Indeed, part of the aim of rehabilitation is to empower patients (Emener 1991).

I explored some feminist literature related to health care and empowerment to help me develop and explore the idea of empowerment and how it might influence continued attendance at CR programmes. Stein (1997) claims that empowerment is not necessarily about achieving power in order to dominate others, but the power and ability to join with others to effect change. I certainly witnessed this amongst my group. Stein (1997) also suggests that participation and cooperation among women are major components of empowerment; that joint efforts to achieve common goals can facilitate empowerment. Kvigne and Kirkevold (2002) explored the issue of feminist empowerment in relation to

stroke rehabilitation, arguing that the rehabilitation process following a stroke is empowering for female stroke patients. They suggest that as part of a rehabilitation programme female stroke patients should be encouraged to achieve transcendence and that if empowered enough they can achieve this. However, having considered Empowerment as the core category I became increasingly uneasy about choosing it as the central theme / category. Yes, the women who took part in my study did experience some form of empowerment (the categories develop during axial coding support this) but I was unconvinced that Empowerment should form the core category. See the memo below:

Memo 11//10/06

I'm exploring Empowerment as the core category. I do believe that the women experienced a form of empowerment; in fact Empowerment emerged as a category during axial coding. However, in relation to the issue of whether or not this best explains attendance, I am not convinced: women attend for post-MI cardiac rehab because they are empowered? Perhaps, but what about: women attend for post-MI cardiac rehab because the programme is empowering (verb use) and this, in turn, helps them to achieve...something? Perhaps empowerment should remain a sub-category and should not be developed into the core? The women may have been empowered, but empowered to do What? Empowered to achieve what? To me 'empowerment' was a process that the women went through but on its own, I think, it has limited explanatory power. It constituted a means to an end, but to what end? What did this empowerment actually mean for the women? As I say, empowerment was a process leading to something. This something, I believe, is a Restored Self. Perhaps, then, the Restoring of Self best explains why the women attended for rehab: that rehabilitation empowered the women and his empowerment led to a restored Self?

During the course of data analysis Empowerment emerged as a category, but to me it acted as a means to an end, not the end in itself. As a consequence of attending for post-MI CR the women experienced a form of empowerment, but this, on its own, does not fully explain why they continued to attend. Whatever it was that empowerment allowed the women to achieve would better explain why they attended for rehabilitation. Further, using the core category criteria developed by Straus and Corbin (1998) I decided that Empowerment could not form the core category; although Empowerment related to the other categories it wasn't central enough and it did not have the necessary explanatory power.

Having decided to leave Empowerment as a sub-category, and not select it as the core, I moved on to explore the possibility of selecting 'Restoration of Self' as the core category.

4.10.3 Restoration of Self as Possible Core Category

The category 'Restoration of Self' emerged through open and axial coding. A number of the women had claimed that by attending CR they had felt restored and I explored and developed this. During the writing of my story line memo it occurred to me that this phenomenon, this restoring of Self, might be chosen to form the core category because it best explains why the 25 women in my study continued to attend for CR. The women may have been empowered, but this empowerment, ultimately, facilitated a restorative process and this restorative process is what influenced the women to attend. Self restoration provided a credible explanation as to why the women attended for CR.

I discuss the concept of 'Self' in greater detail, later (see pages 235-258). First, I need to demonstrate how, and justify why, I chose 'Restoration of Self' to be the core category of my theory.

When, during selective coding, I was considering 'Restoration of Self' as the core category, I re-examined all of the categories and the paradigm model (causal & intervening conditions, actions / interactions etc) and explored how these categories related to 'Restoration of Self'. I concluded that all the other categories were part of a process of Self restoration. Further, I came to believe that the 'Restoration of Self' category had the necessary explanatory power to account for the central phenomenon, that of attendance at CR. Wanting to be restored emerged as an intervening condition as part of the paradigm model. The actions and interactions engaged in by participants were examples of a process of Self restoration and the consequence of these actions was a 'restored-Self.' I came to the conclusion that 'Restoration of Self' gave the best explanation and should be chosen as the core category.

Once I had chosen 'Restoration of Self' as the core category, I related everything else to it and started to refine my theory. See memo, below:

So, why do women (why did the 25 women studied) attend for post-MI cardiac rehabilitation? This is my central question, this is what I want to find out, this is what I want to discover. Having explored my data and having axial coded I have a much better idea as to what is going on. If I place Restoration of Self as the core, things become even clearer: the women of my study attended for rehab because by doing so they restored themselves; they experienced a restoration of Self. This 'Restoration of Self' was not just a consequence of attending, but facilitated subsequent attendance. The restorative process occurred early on and the more they attended the more restoration they experienced and so on. Is this, then, the best explanation as to why the women attended: they restored themselves? Restored their physical Self, restored their emotional Self, and restored their cognitive Self? For me this is a better explanation than empowerment. Indeed, is it not the case that the women were empowered to restore themselves; that the empowerment they experienced facilitated their 'Restoration of Self'?

There are many different definitions and explanations of the concept of 'Self,' and these are discussed in greater detail in the next chapter. However, in order to discuss my core category of 'Restoration of Self' and lay claim to its power to explain attendance at CR programmes, the following definitions of Self may prove useful.

Kotarba and Fontana (1984) have written much about the self and about 'Self' in society. Their definition, here, of the existential Self is useful because it is broad, fluid and ontologically compatible with a research approach that uses grounded theory:

"The existential Self refers to an individual's unique experience of being within the context of contemporary social conditions, an experience most notably marked by an incessant sense of becoming and an active participation in social change." (Kotarba and Fontana, 1984: 8).

For Kotarba and Fontana (1984) the Self is both reflexive and is the conscious focal point of all aspects of being: emotions, values, knowledge and opinions. Kotarba and Fontana (1984) go on to suggest that the Self is not determined but, rather, it is a process, a process of becoming in which the individual actively seeks meaning and control. For Mead (1992) the Self:

"Is essentially a social structure and it arises in social experience. (Mead, 1992: 15).

Mead suggests that each of us, as individuals, fashions a sense of Self through engagement with others.

The following excerpt by McAdams (1993) is not so much a definition of Self as a description:

"...each of us knows certainly that the 'me' exists in space and time as a causal, continuous and independent agent. ...I know that when I do something it is I who am doing it, that I can cause things to happen in the world and that I am separate from others who have their own sense of Self. (McAdams, 1993: 44).

From these various definitions and accounts of 'Self' it can be seen that a key characteristic of them all is that whatever the Self is, it relates to a person's own understandings, opinions, levels of knowledge, cognition and emotions. Self is a personal phenomenon. As Elliott (2003) states:

"The one key characteristic of the Self ...is that selfhood is personally created, interpretively elaborated and interpersonally constructed" (Elliott, 2003: 5).

The other key characteristic of Self is that it is embodied. As Kotarba and Fontana (1984) maintain:

"The Self is embodied because it cannot transcend its physical vehicular unit, and it receives its stimulation to act from feelings and emotions emanating from the body. (Kotarba and Fontana, 1984: 110).

Anything that affects the body (illness, trauma, disfigurement, myocardial infarction) can affect the Self; any assault on the body results in disruption of the 'embodied-Self.' If we take these characteristics of Self; that it is constructed, embodied and subjectively perceived, then we can see that what the women in my study experienced was a process of restoration of these key characteristics of what is called 'Self.' They experienced increases in confidence, increases in their understanding of their condition. They formed

friendships, which impacted upon Self and they resumed certain valued activities and hobbies. Indeed, attending CR facilitated restoration of emotional, cognitive and physical aspects of Self. See diagram 4.8, below:

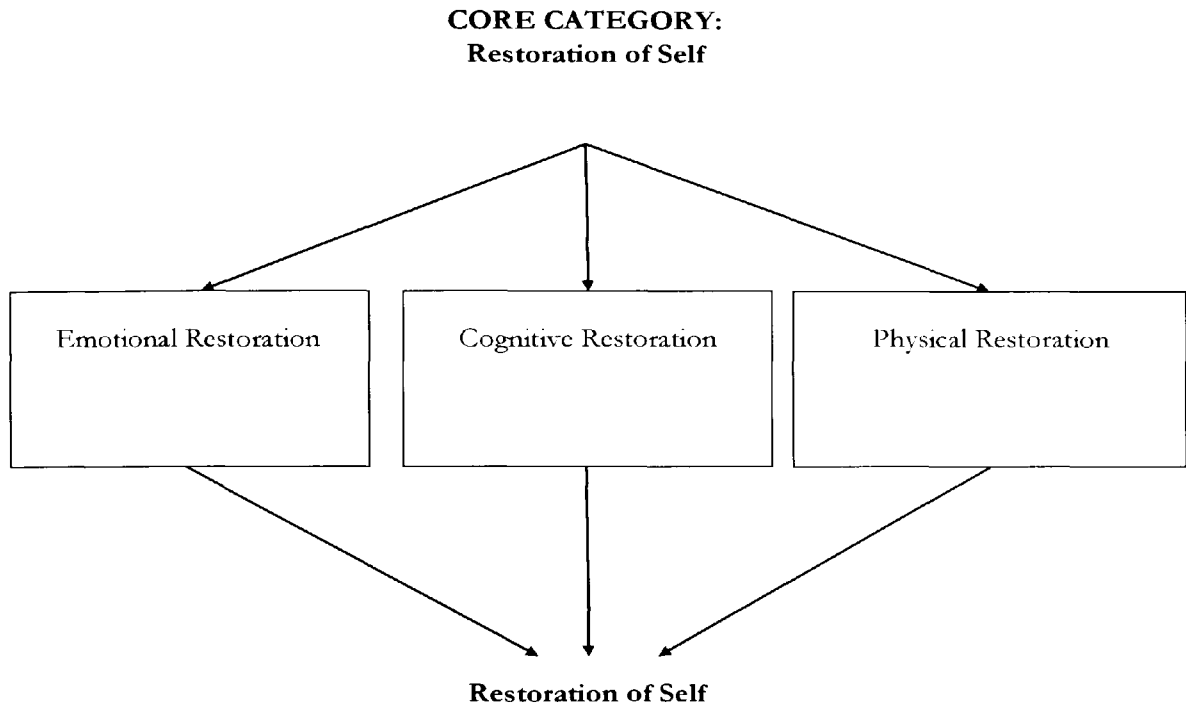


Diagram 4.8 Component parts of 'Restoration of Self'

Strauss and Corbin (1998) suggest that once the general story has unfolded and the core / central category identified, the story should then be re-told, only this time the categories and sub-categories that emerged through open and axial coding should be added in. See memo, below.

Memo 27//10/06

This is my developed storyline memo. I have employed the technique advocated by Strauss and Corbin (1998). As such, developed categories are presented in the story in **Bold** text:

Experiencing a myocardial infarction had implications for the participants of my study and resulted in a damaged body that disrupted participants' Self (**Effects of an MI**).

A number of intervening conditions affected attendance at rehabilitation (**Expectations of CR / Wanting to be Restored, Not Being Able to Take Part, Educational Material, Family and Friends Support**). Through rehabilitation the women were able to engage in physical and educational activities (**Continued**) - **Attendance / participation in Cardiac Rehabilitation classes: Information Seeking, Sharing Information, Group Interactions**). This process led to a form of empowerment (**Empowerment**) and these helped restore the Self (**Increased Confidence, Understanding Condition, Friendships**).

By attending for cardiac rehabilitation the women in my study experienced a process of Self restoration. This restorative process facilitated continued CR attendance. In essence, 'Restoration of Self' was not only a **consequence** of attending post-MI CR, but was also a **facilitative factor** in influencing subsequent attendance.

During the process of relating categories and interconnecting them (Axial Coding) one core category emerged that best explained and made sense of all of the categories that influenced continued attendance at post myocardial infarction CR: 'Restoration of Self'. For me, the reason why the women attended for their post-MI CR was because by doing so they were able to restore themselves; CR led to a 'Restoration of Self'.

After considering both Empowerment and 'Restoration of Self', the latter was chosen as the core category to explain post-MI CR attendance, but there is a potential criticism, i.e., that the 'Restoration of Self' was a consequence of attendance not the reason for attendance. If this criticism holds true, then 'Restoration of Self' might not explain why the women continued to attend for rehabilitation. However, whilst it is true that 'Restoration of Self' could be seen as a consequence of attendance, the self restorative process was experienced by the sample early on in their rehabilitation regime and this restorative process rather than being just a consequence of attendance also actively facilitated and positively influenced subsequent CR attendance. The relationship between

'Restoration of Self' and the other developed categories are shown in the model depicted in diagram 4.9, below:

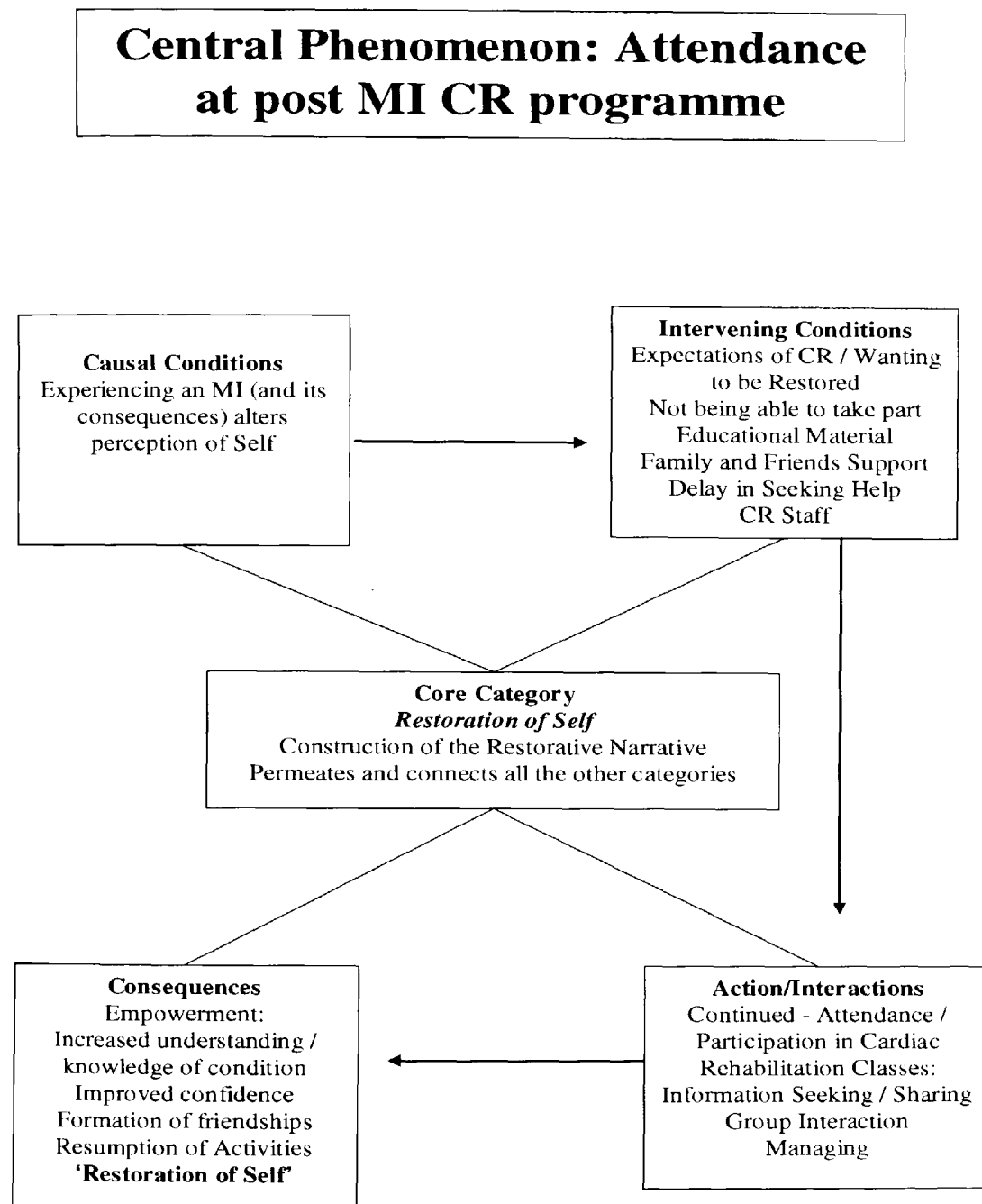


Diagram 4.9 Restoration of Self Model

To further develop this 'Restoration of Self' theory I had to code for and explore the actual process of restoration; to explore the restorative mechanism.

4.11 Coding for Process

Strauss and Corbin (1998) maintain that because process is a vital aspect of theory development, one must code for it when analysing data. Process is the sequence of actions and interactions, the dynamic mechanism that can account for what is going on. By exploring and analysing for process one is able to answer the questions; what is going on here? What are the basic social processes at play?

To code for process I once again used Strauss' paradigm coding process and explored and analysed my developed categories and subcategories. Whilst examining the relationships between the categories, subcategories and the core category I focused on what was happening, who did what, when it occurred, why it occurred, why it happened and how it occurred. I explored the conditions under which it occurred and how participants talked and interacted. Doing this allowed me to further understand my 'Restoration of Self' theory. Strauss and Corbin (1998) maintain that:

"Although...text provides clues about how categories relate, the actual linking takes place not descriptively but rather at a conceptual level." (Strauss and Corbin, 1998: 125).

Thus, I thought about how my developed categories and subcategories related to each other and to the core category. What seemed to be going on was more than just a restored Self as a consequence of attending for CR. Rather, participants (to greater or lesser extent) were engaged in a *process* of Self restoration.

Charmaz (2006) asserts that when one defines a basic social process it is always an interpretation and Glaser (2004) would argue that coding and analysing for process is yet another example of Straussian grounded theory forcing data into a preconceived ideal or model. However, exploring data for process is central to Straussian grounded theory (Strauss and Corbin 1998) and using the paradigm model assisted me in developing my theory. Diagram 4.10, below, depicts the process of Self restoration.

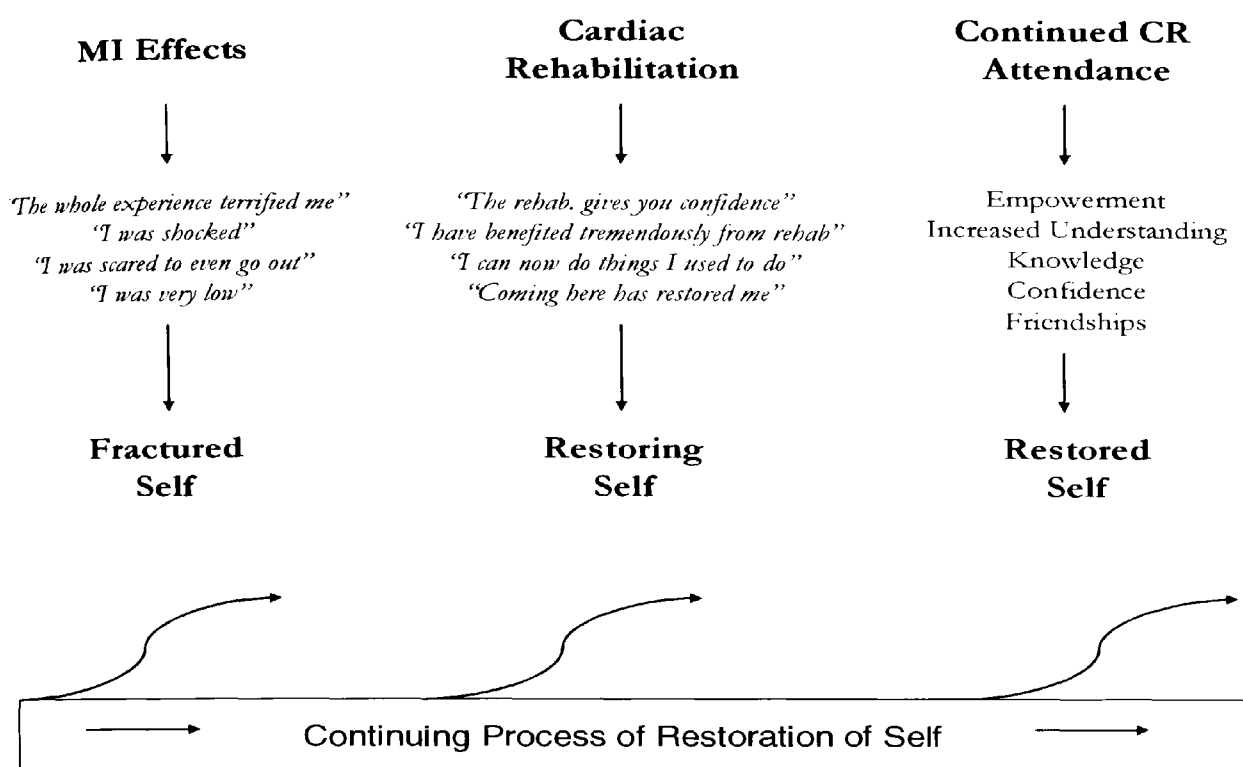


Diagram 4.10 Process of Self Restoration

4.12 Theoretical Saturation

I continued to collect interview and observational data whilst I was engaged in axial and selective coding and I continued to collect data until I was satisfied that I had reached what Strauss and Corbin (1998) refer to as theoretical saturation. Data collection should continue until all developed categories are saturated, meaning that no new data emerges from coding. In my study, theoretical saturation was achieved after 25 interview transcripts had been analysed. I had suspected that I had reached theoretical saturation by the time I had coded interview transcript number 23, but I continued with interviews 24 and 25 to ensure that saturation had, indeed, been achieved. Analysing these last two interview transcripts produced no new concepts and all the concepts that were developed from these last two interviews were able to be placed under the categories discussed so far. Further, I reviewed all of my memos to check whether I had missed any significant points or findings which needed to be further explored or expanded upon. Having done this I was satisfied that I had sufficiently developed and saturated my categories and only then did I cease data collection.

4.13 Restoration of Self Narrative

Having decided upon 'Restoration of Self' as the core category, I then set out to develop my 'Restoration of Self' theory. To achieve this I needed to explore, in much greater detail, the concept of 'Self' and how Self can be affected by illness and then restored through rehabilitation. A significant phenomenon that I subsequently became aware of was the relationship between Self and the construction of narratives. Indeed, the construction of Self is linked with language and in the next chapter I explore issues surrounding the construction of Self through narratives and the 'Restoration of Self' through the construction of the restorative narrative. When reviewing my data I became aware that what I was looking at was 25 restorative narratives. An important part of the Self restorative process was the women's ability to author narratives famed around the restoration process. Exploring these narratives helped me to further understand why the women in my study attended for post-MI CR. Reflective narrative accounts of illness can illuminate fundamental disruptions to the Self. Further, authors of such accounts also maintain that narration is an important way to make sense of an illness episode and to restore Self. By studying such narratives I was able to support my 'Restoration of Self' grounded theory and these issues are discussed in the next chapter.

4.14 Validity of Findings

The issue of validity in grounded theory is different from that of quantitative research. Validity in grounded theory is not about empirically 'testing' findings or theory rather it is about ascertaining whether developed theory emerged from the raw data; to determine how well a developed abstract theory fits with the obtained raw data and whether theory can explain a particular phenomenon (Strauss and Corbin 1998).

From the analysis of my collected data I am saying that the 25 women in this study attended for their post-MI CR programme because rehabilitation facilitated a process of Self restoration. This is my interpretation, my abstract theory and it was developed through my analysis and interpretation of raw interview data. However, in order to satisfy myself that what I had produced was credible I undertook the following:

- Asked peers to consider the developed categories / theory

- Asked some of the research participants to comment upon my 'Restoration of Self' theory

I asked four of my peers to consider the categories that I had developed during coding and whether they could see that the relationships between categories could be understood as a Self restorative process. I was not seeking an external validation; merely reassuring myself that what I had developed was credible. Through discussing my categories with a number of my peers I gained a sense that categories did have the necessary explanatory power for them to form part of a theory to explain CR attendance. Certainly, nobody I discussed this issue with stated that they thought it unreasonable or incredible.

In ascertaining the credibility of my theory I also wanted to obtain the opinions of some of the women in the study. Once I had more fully developed my 'Restoration of Self' theory I took this theory (in written form) to five women and asked them to comment upon it, specifically whether they could recognise themselves in the theory and whether or not the theory represented their experience of CR. All five stated that they thought the idea of restoration a "good" explanation to account for their CR attendance and all three agreed that they could see themselves in the theory.

Although by no means scientific methods of validation, these two processes did add credibility to my interpretations of the data, to the categories that I developed and to my 'Restoration of Self' grounded theory. Ultimately, validity in grounded theory relates to the applicability and usefulness of theory and whether it can explain phenomena. The Self restorative theory does provide an explanatory account of CR attendance. Further, this theory can be seen to be grounded in the data that I obtained.

4.15 Chapter Summary

By collecting, analysing and coding data from a sample of 25 post-MI women, I was able to develop a grounded theory to explain attendance at post-MI CR programmes. Open coding yielded a number of concepts and categories and these were further explored and developed through axial coding. Using the paradigm coding process as depicted by Strauss and Corbin (1998) relationships between categories were explored and the core category of

'Restoration of Self' chosen. Thus, attendance at post-MI CR was facilitated by a process of 'Restoration of Self'.

CHAPTER FIVE: Discussion

5.1 Chapter Introduction

This chapter takes the form of a general and 'overall' discussion. It discusses the main findings of the study and various theories of Self and of how Self is related to the construction of narratives and how Self can be restored following a life threatening event, such as on a post-MI CR programme. I also explore some of the pertinent literature related to the effects of experiencing a myocardial infarction, female attendance at CR programmes and the concept of 'Restoration of Self' through CR.

'Restoration of Self', as a theory, had a number of component parts. These component parts, more correctly, the emergent sub-categories that were identified and developed, and which I referred to in my paradigm model, included: empowerment, friendships, family support and expectations of CR

Because I utilised the paradigm coding process during data analysis, in this chapter I also use the paradigm framework to structure my discussion. Firstly, although introduced in the preceding chapter, it is necessary to review the main findings of my study.

5.2 Review of Main Findings

The aim of this study was to explore factors that affect women's decisions to continue attending phase three post-MI CR programmes. Through analysing and coding interview transcripts of 25 post myocardial infarction women a number of categories emerged related to experiencing an MI and to CR attendance. It emerged that experiencing an MI had a number of consequences for the participants. Coded examples of these consequences included: fear, shock, disbelief and role change. These 'MI Effects' ultimately led to alterations in the participants' lives and affected their sense of Self.

Although experiencing an MI is what necessitated attendance at a CR programme in the first instance, subsequent and continued CR attendance was influenced by a Self-restorative process which all 25 participants experienced by attending CR. Attending CR was affected by a number of other intervening

conditions. Ultimately, the main motivational influence for attending for post-MI CR was this Self restorative process.

'Restoration of Self' emerged as the core category in this study. At first, 'Restoration of Self' emerged, through coding and analysis, as a consequence of attending for post-MI CR. However, during selective coding it was identified as the core category because it seemed to have the necessary explanatory power to 'pull together' all other categories and account for why the women attended their rehabilitation. This core category is not only central to the integration of the theory but it permeates and pulls together all the other developed sub-categories. Further, it permeates all aspects of attending for post-MI rehabilitation. I am not suggesting that all 25 women achieved a 100% 'Restoration of Self'. Rather, the restorative processes were a continuum along which the women travelled. As such, some women were less restored than others. For example, some participants stated that attending CR was a kind of journey, with a beginning, middle and end and that had not, yet, reached the end of their journey. Others claimed to have achieved a total restoration by attending their CR programme. Certainly, all 25 women attended for and successfully completed their CR programme and being involved in the restorative process, I believe, can explain this attendance. I cannot state that this is the only explanation available to account for continued attendance. Empowerment, expectations and family support, for example, were also important. However, given the codes, concepts and categories that were developed this is the best credible explanation to account for continued CR attendance witnessed in the 25 women in my study. As Strauss and Corbin (1998) maintain:

"There is not just one correct way of stating relationships. The essential element is that categories are interrelated into a larger theoretical scheme. (Strauss and Corbin, 1998: 146).

Further, Strauss and Corbin (1998) also maintain that abstract theory represents not one specific individual's or group's story but rather:

"... the stories of many persons or groups reduced into, and represented by, several highly conceptual terms." (Strauss and Corbin, 1998: 146).

Therefore, any developed theory should have relevance for all members of a particular study. The 'Restoration of Self' theory was developed using data collected from interviews and, I propose, represents both the 'general experience' of my participants and offers the best possible explanation to account for the continued attendance witnessed in all 25 women of my study.

5.3 Paradigm Model

Although coding and conceptualising enabled me to develop a number of concepts and then categories I also needed to be able to put these together in a coherent and explanatory manner. The use of the Straussian paradigm model (conditions, actions/interactions and consequences) allowed me to do this. I was able to do this in spite of Glaser's (1992) criticisms of both the grounded theory of Strauss and Corbin (1998) and of Strauss' coding paradigm.

Glaser (1992) vehemently maintains that Strauss's use of grounded theory (specifically, the grounded theory technique proposed in Strauss and Corbin's book 'Basics of Qualitative Research') borders on: "immorality" because, Glaser (1992) believes, it distorts the ethos of the original grounded theory process. For Glaser (1992) Strauss and Corbin's paradigm-model-informed grounded theory approach:

"Misleads researchers attached to grounded theory...It leaves them confused on many issues of grounded theory...ignoring the true contribution of theoretical sensitivity" (Glaser, 1992: 6).

However, I disagree with these criticisms made by Glaser of Strauss's GT. Without Strauss's coding paradigm model, I would have struggled to develop a coherent theory to explain why the 25 women attended for their rehabilitation. Open coding was, relatively, straightforward, but I did initially struggle when it came to relating codes, concepts and categories together. Axial coding was the most taxing aspect of the data analytical process and I did, initially, begin to wonder whether Glaser might be right when he said that axial coding "bastardises" the grounded theory process and encourages researchers to force their data to fit an arbitrary model. However, by using the coding paradigm and by thinking about how categories related to each other, I began to appreciate that, rather than forcing data, the Straussian paradigm model enable me to build up a interrelated model, in which categories were related together to

explain what was going on. Ultimately, the paradigm model enabled me to explain women's continued attendance at post-MI CR. As Strauss and Corbin (1998) state:

"...if theory building is indeed the goal of a research project, then findings should be presented as a set of interrelated concepts, not just a listing of themes. (Strauss and Corbin, 1998: 145).

To generate theory I needed to build up a 'general sense' of what was going on and Strauss's paradigm model helped me do this.

Firstly, I placed, at the top of a piece of paper, the central phenomenon: CR attendance. Then, using the component parts of the paradigm model (whilst concurrently reviewing my memos) I assembled the developed categories into the explanatory 'Restoration of Self' model. By using the paradigm model I was able to place all the developed categories and sub-categories into a relational model; into a relational map (see diagram 4.9 on page 184). I could see how categories related to each other, how some were conditions, how some actions and others consequences.

The result of this process is my interpretation of what was going on. As Strauss and Corbin (1998) maintain:

"Another researcher, coming from a different theoretical orientation and having another research question, might arrive at quite a different interpretation. However, once an analyst explains in detail how he or she arrived at a conceptualisation, other researchers, regardless of their perspective, should be able to follow the analyst's path of logic and agree that it is one plausible explanation for what is going on." (Strauss and Corbin, 1998: 146).

I now discuss my developed 'Restoration of Self' model. To do this I will explore each of the model's paradigmatic component parts. I will show how, by using the paradigm model, categories were related to each other and how my theory was developed.

5.4 Central Phenomenon

When developing theory one has to keep in mind the central phenomenon; what is it that one wants to explore, find out about? Therefore, during analysis and theory development I kept in mind my central question: why did the women in my study continue with their post-MI CR programme? I then had to identify those phenomena that necessitated CR attendance in the first place: what was the causal condition?

5.5 Causal Condition(s)

Strauss and Corbin (1998) state that:

“Causal conditions usually represent sets of events or happenings that influence phenomena.” (Strauss and Corbin, 1998: 131).

In this study the causal conditions were the factors that necessitated attendance to post-MI CR programmes in the first instance.

Using Strauss and Corbin's (1998) paradigm model the causal condition was identified and its relationship with the central phenomenon explored. The causal conditions identified in this study were those of experiencing an MI and its effect upon Self. Experiencing a myocardial infarction affected participants' lives in a number of significant ways and these altered the women's sense of Self. The opportunity to attend post-MI CR provided the women with the opportunity to confront and address some of these consequences of having had an MI. Indeed, the women in my study demonstrated that experiencing an MI and suffering its consequences were the initial motivational drives behind decisions to attend for CR. Once enrolled, the restorative process that they experienced influenced subsequent attendance and provided the women with the impetus for continued attendance until their phase three rehabilitation programme was complete.

During data analysis and coding conceptual codes related to experiencing an MI were eventually developed into the category 'Effects of an MI' and these included fear, (perceived) depression, disbelief, emotional shock and psychological upset. All 25 participants in my study claimed that having an MI had adversely affected them both emotionally and physically. This is consistent

with previous research which has demonstrated that experiencing an MI is a major life event for women (Young and Kabana 1993, Wallwork 1996, Benson et al 1997, Jackson et al 2000 and Al-Hassan and Sagr 2002). Further, the time period immediately following discharge home and before CR began, was characterised by fear, anxiety, emotional upset and confusion. These post discharge experiences are also well documented (Havik and Maeland 1990, Jackson et al 2000, Al-Hassan and Sagr 2002).

Research suggests that gender differences exist in the experience of having an MI. Evidence has shown that post-MI depression in women is higher than it is in men (Brezinka and Kittel 1996, Miklaucich 1998, Frazier et al 2002) and the quality of life for women post-MI is also reported to be significantly lower than it is in men (Lieberman et al 1998, Chin and Goldman 1998, Davidson et al 2003). According to Kristofferzson et al (2003) women with CHD have physical, social and medical disadvantages when compared with their male counterparts, which can influence women's perception of post-MI recovery. Women often minimise the impact of their cardiac disease, tend to delay seeking medical help and often do not want to bother others with their cardiac symptoms. Further, traditional gender role patterns may influence the recovery of patients who have experienced MI (Kristofferzson et al 2003).

A number of explanations have been put forward to explain these cardiac gender differences. For example, the increased age at which women experience MI means that they are more likely to suffer an MI along side co-morbidities (Benson et al 1997, Radley et al 1998). Others, notably, Mackenzie (1993) claim that the role of home maker adversely affects the lives of women post-MI in that women tend to maintain engaging in household duties after an MI rather than engaging in a period of rest and recovery (Mackenzie 1993).

Radley et al (1998) collected cardiac data on 60 post-MI women and 60 post-MI men and found that whilst there was no significant difference in the total number of problems reported by women and men, women and men had differing problems. In this study, it was found that post-MI women reported poorer health, were more likely to live alone, were more likely to come from lower socioeconomic background and had special problems around domestic duties.

The focus of my study was upon women and so it was not possible to explore gender differences. However, a number of consequences of experiencing an MI emerged and these were to prove significant in influencing the research participants at post-MI CR programmes.

All the women in my study (n=25) claimed that they experienced fear as a consequence of having an MI. This fear was not only experienced during the acute phase of the illness but also in the phases immediately after their MI and in the weeks after being discharged home. Participants claimed that they were fearful of having another MI, dying and not seeing family members again. Fear impacted adversely upon their lives in that participants felt unable to engage in their normal activities such as pursuing hobbies, sport, shopping and undertaking household tasks for fear of dying or inducing another MI. This is consistent with findings from previous research (Jackson et al 2000, Pattenden et al 2002).

Employing a qualitative feminist research approach, Jackson et al (2000) interviewed 10 women to explore the women's experiences of recovery from MI. The authors claim that their use of a feminist approach better enabled them to gain an understanding of how the women recovered from their MI and the credibility of the study's findings are enhanced by the fact that the authors took steps to assure that findings reflected participants' experiences.

Results from my study showed that after an MI the women engaged in intense contemplation and reflection. This period was also characterised by fear which influenced and affected all major aspects of the women's lives. Fear was related to death, taken-for-granted activities, the future and fears about their role as family carer. Further, fear was also found to be exacerbated by lack of knowledge and understanding about myocardial infarction, with the women in the study stating that after discharge home they wanted specific information about their MI but that this was often difficult to obtain.

Participants in my study also claimed that before they started their rehabilitation programme their lack of knowledge exacerbated their sense of fear as, often, they were unclear about what physical activities they could or could not undertake once home. Indeed, one of the stated benefits of attending for CR

was that questions could be answered and issues contributing to fear addressed.

In a qualitative exploration of the experiences of 12 women living with CHD, LaCharity (1997) discovered that feelings of fear post-MI could also be brought on by being alone and this was also expressed by those members of my study who had been widowed and who lived on their own.

Consistent with this previous research, all 25 of the research participants who took part in my study stated that they also feared having another spontaneous MI and that this fear severely impacted upon their lives. Lisk and Grau (1999) employed a grounded theory research approach and collected data from five focus groups consisting of 41 women who all had coronary heart disease. Findings from focus groups revealed that fear of dying or of having another cardiac event were common experiences for these groups and women were often afraid to take part in what they considered normal activities. Again, these findings are consistent with those from my study in that many of my participants stated that they were often afraid to engage in normal daily life activities out of fear of inducing another cardiac event.

The effects of experiencing fear and not feeling able to participate in normal activities was stated as contributing to feelings of post-MI depression. Many members of the sample stated that following their heart attack they experienced what they perceived was a form of depression. Although I did not measure depression empirically, established research literature supports the notion that women develop depression following myocardial infarction (Aben et al 2003, Steptoe and Whitehead 2005, Lane and Corroll 2005). Participants in my study stated that the post heart attack fear they experienced, along with not feeling able to engage in normal activities, contributed towards this feeling of depression. Further, perceived depression was closely related to emotional-upset, with many of the women studied claiming that they felt low and emotionally drained in the weeks after their MI.

Participants also stated that their feelings of fear and depression were related to their perceived inability to continue to care for or look after family members such as their grandchildren. Many of the women complained that not being able to undertake household duties made them 'sad' and some complained of

feeling guilty about not being able to undertake these previous tasks. Similarly, research conducted by Helpard and Meagher-Stewart (1998) found that housekeeping activities help women to cope with illness and give them identity and self esteem. Similarly, Svedlund and Danielson (2004) also explored the experiences in daily life of women and their partners following an acute myocardial infarction. They discovered that although women's partners offered help to their wives immediately following discharge home after an MI, many of the women studied still wanted to organise housework duties and thought a lot about housework, expressing that it was often difficult not to become involved. Svedlund and Danielson (2004) also reported that the women found it difficult not to be the strongest member in the family and that sometimes they undertook housework without others knowing.

In this current study women reported that not being able to undertake housework adversely affected them in that they wanted to be able to do more than they felt able to do. Participants expressed that being prevented from pursuing these normal household duties contributed to their sense of depression / sadness and their perceived role within the family. As such, they had to change and adjust to a new situation and this meant adapting their lives accordingly.

However, in contrast to prior research such as that conducted by Conn et al (1991), Low 1993, Aben et al (2003), Steptoe and Whitehead (2005) and Lane and Corroll (2005), LaCharity (1997) did not find any evidence to support the claim that women experience depression post-MI. Instead, LaCharity (1997) claims that the fear and the need to cope with living with heart disease are what preoccupied the women she studied, post-MI.

During the period of time between the onset of their MI and up until the beginning of their CR, the participants in my study experienced other emotions alongside fear and depression. For example, some also claimed they initially experienced shock at being told that they had had a myocardial infarction and then disbelief. This disbelief arose out of their assumptions about heart disease and about who they perceived as being at risk of experiencing an MI. Many women held stereotypical views about the 'classic' heart attack patients, namely obese male smokers in their late 50s.

In a grounded theory study Brink et al (2002) interviewed 11 women as part of a sample of 22 post-MI patients in order to explore symptom perception and care-seeking behaviour. The research participants expressed feelings of amazement and disbelief at being told that they had had an MI with these women claiming that they had no idea that an MI could happen to them. The same authors report that in their study, women often completed housework even if they experienced chest discomfort believing that as women they were invulnerable to heart conditions. Others, notably, Dempsey et al (1995), Foster and Mallik (1998) and LaCharity (1999) have suggested that women often delay seeking help for acute cardiac conditions and avoid bothering others about their cardiac symptoms.

Another recurrent theme to emerge from my study, related to fear, depression and disbelief, was that of a reported loss of confidence after an MI. Participants stated that they lost the confidence to do things and engage in normal activities and that having an MI had 'knocked them.' Further, participants stated that avoiding exercise and other 'normal' daily activities amounted to a form of coping. This is consistent with the findings of previous research, with several research studies demonstrating that women employ different coping strategies post-MI. For example, Kristofferzon et al (2003), report that women employ different coping methods post-MI, including symptom minimising and evasive strategies. Similarly, Bennett and Connell (1999) reported that women employ evasive coping strategies post-MI and LaCharity (1997) and Helpard and Meagher-Stewart (1998) claim that, in certain circumstances, women try to over engage in certain household chores as a means of coping with alterations in self identity and self esteem post-MI. It could be argued that attending for CR could be considered a coping strategy in itself.

Participants in my study also expressed a form of powerlessness and of not feeling in total control. This is consistent with what Svedlund and Danielson (2004) reported in that post-MI women often feel powerless after a heart attack because they are not sure how to deal with the situation and they often view their cardiac illness as a failure.

5.5.1 Fractured Self

It became clear that for the 25 women who took part in my study the effects of an MI altered their perception of 'Self.' As such, participants' Self required readjustment in the weeks immediately following an MI. Experiencing an MI not only affected participants emotionally but also physically. All 25 of the participants stated that their MI had left them feeling physically weak, tired and worn-out and this is consistent with previous research such as that undertaken by LaCharity (1997), Jackson (2000) and Crane (2005). In a study to explore factors related to post-MI fatigue, Crane discovered that women reported fatigue that they perceived as different from fatigue that they might have experienced before their MI. Thus, not only the emotional effects of a myocardial infraction but also the physical effects impacted upon the lives of all 25 participants who took part in my study. Study participants claimed that the physical changes altered their ability to pursue normal daily activities, such as hobbies and this too affected the nature of their Self. As Seymour (1998) suggests, the Self is embodied, we come to know ourselves through our bodies and, thus, anything that affects the body can impact upon the Self. For the women in my study experiencing an MI did impact upon their sense of Self. Indeed, terms such as Damaged Body, Fractured Identity, Disrupted Social Relationship and Body Crisis, used by Seymour (1998) to refer to the impact of disease on the embodied-Self, could all be applied to the women in my study.

According to De Beauvoir's (1974) feminist theory, the body is fundamental in creating a person; the body being both a biological reality and a socially constructed entity. It is through the body that a person becomes aware of oneself; experiences oneself. Seymour (1998) claims that the cultivation of body image is the principle mechanism for the presentation of Self in our modern society and that 'Self' cannot be disassociated from the body:

"Embodiment always indicates, following Merleau-Ponty (1962), that perception is from the vantage point, namely the body. A 'Self' cannot be a disembodied agent." (Seymour, 1998: xiii).

Thus, any assault on the body can result in disruption of the 'embodied-Self': a damaged body disrupts the Self. Kvigne and Kirkevold (2002) claim that the body of a woman who has suffered from some form of debilitating illness is

different from the body of a healthy woman. Serious illness, such as myocardial infarction, can result in physical and cognitive changes that:

“Will place the female...survivor in a fundamentally different situation, requiring new ways of being in the world.” (Kvigne and Kirkevold, 2002: 8).

The impact of an MI upon Self meant the women had to employ a number of strategies to help them cope and these included avoidance behaviours, modifying behaviours and a desire to seek knowledge. Some of my participants avoided certain activities that they perceived were dangerous or that could lead to another heart attack, whilst others modified their lifestyle in the hope of avoiding another heart attack. Although feminists might argue that the avoidance of engaging in heavy housework, for example, was not necessarily an adverse consequence of having an MI, many women do define themselves in relation to their maternal and ‘housekeeper’ role and having to adjust this role post-MI did impact upon my participants’ sense of Self. Thus, experiencing an MI (causal condition) had a number of implications for the women I studied in that their MI impacted negatively on their lives and upon their embodied Self. Participants stated that following their MI they withdraw into themselves and reflected upon their lives and hopes and aspirations for the future. Being given the opportunity to attend post-MI CR provided participants with a means to address and overcome some of these effects of experiencing an MI. However, as I shall discuss, below, attendance at post-MI CR programmes was also affected by a number of intervening conditions. These conditions were identified and labelled as either facilitating CR attendance or inhibiting it.

As ‘Conditions’ is the second component part of Strauss’s paradigm model these intervening conditions are now discussed.

5.6 Intervening Conditions

Strauss and Corbin (1998) maintain that intervening conditions:

“...are those that mitigate or otherwise alter the impact of causal conditions on phenomena.” (Strauss and Corbin, 1998: 131).

The causal conditions were discussed above and consisted of experiencing an MI and its consequences. These were what necessitated attendance to CR in

the first instance. During further data analysis and axial coding a number of intervening conditions which affected CR attendance were also identified. Specifically, sub-categories emerged that were identified as either facilitating CR attendance (facilitative intervening conditions) or hindering rehabilitation attendance (inhibitive intervening conditions). For example, if support from family and friends was present then this had a positive impact on decisions to attend for rehabilitation. Conversely, if participants were unable to get to rehabilitation classes, for whatever reason, then this had a negative impact on rehabilitation attendance. Two inhibitive and three facilitative intervening conditions were identified.

The two inhibitive intervening conditions to emerge were

- Delay in Seeking Help
- Not Being Able to Take Part

The three facilitative intervening conditions identified were

- Family & Friend Support
- Educational Material
- Expectations / Wanting to be Restored

These intervening conditions will now be discussed.

5.6.1 Delay in Seeking Help & Health Beliefs

A sub-category identified in this study was that of the participants delaying seeking medical help at the onset of their cardiac symptoms, such as chest pain. Ultimately, delays in seeking medical help for MI induced chest pain inevitably meant a delay in subsequent CR referral and attendance and so, although this intervening condition is about participants' initial response to their chest pain, it does relate to how they sought help and subsequently attended post-MI CR.

The delay in seeking help at the onset of chest pain occurred for a number of complex psychosocial reasons. During data analysis and subsequent data

collection I pursued this phenomenon and found that some participants held stereotypical views about what constituted a 'heart attack patient.' Stereotypes held by participants included being overweight, being a smoker and, most interestingly, being a man. For certain members of my sample, they did not perceive themselves as being at risk because they perceived heart disease to be a male problem. Indeed, one participant told me that, whilst in the coronary care unit, she implored medical staff to check that she had had an MI because she could not believe that she had experienced one, given that she was a woman. Whilst it is true that not all the women in my study held such a strong stereotypical view, only one of them initially correctly identified their chest pain as having a cardiac origin. Further, all women studied engaged in some form of self-medication and symptom normalisation. Many participants did not immediately recognise their chest discomfort as a heart attack. Symptoms were what Cowie (1976) describes as 'normalised'. By this, I mean that by attributing chest discomfort to some other cause, invariably indigestion, participants made their symptoms seem more normal to them. This then lead to delays in seeking medical advice.

The delay in seeking medical treatment that emerged during the course of my study has been reported by others. Foster and Mallik (1998), for example, found that women misinterpreted their cardiac chest pain and when compared to men delayed longer in seeking help for acute chest pain. To account for this, Foster and Mallik (1998) argue that women, as well as male medical staff, wrongly assume that chest pain and/or chest discomfort in women is not likely to have a cardiac origin. Indeed, many women still perceive heart disease as a male problem (Johnson and Moore 1990, Dempsey et al 1995, Heid and Schmeltzer 2004). There is evidence to show that women have smaller hearts and coronary arteries than men (Wingate 1997, Miller 2002) and that variations in symptom presentation is partially related to the differing physiology between men and women (Miller 2002).

Symptom misinterpretation is related to the fact that the classic symptoms of an MI are based upon the symptoms most commonly experienced by men; crushing central chest pain which radiates into the neck and down the left arm, and research has shown that women are less likely to present with these classic signs of an MI and so find interpreting heart symptoms difficult (Zuzelo

2002, Schoenberg et al 2003, Emslie 2005). This is supported by White and Johnson (2000) who suggest that the increased delay in seeking help for chest pain seen in women is due to the fact that women and medical staff have difficulty recognising symptoms appropriately. One participant was to explain to me that when she was experiencing her chest pain she telephoned her GP who told her that it was probably due to indigestion, an explanation she readily accepted.

LaCharity (1997) and Lisk and Grau (1999) suggest that women readily accept doctors' explanations when told that 'women's' problems (stress and/or nervousness) is what is causing their cardiac symptoms. McCormick and Bunting (2002) claim that such andocentric views of cardiovascular disease can account for the prevailing perception among both women with cardiac symptoms and medical staff that cardiovascular disease is still primarily a male problem. Indeed, Emslie (2005) suggests that the perception of cardiovascular disease, as a man's disease, means that women find it difficult to attribute symptoms to heart disease and that this can lead to long delays between the onset of chest discomfort and the seeking of medical assistance.

Participants in my study made statements which suggested that they believed some of the historical patriarchal views concerning women and cardiovascular disease, that cardiovascular disease is a male problem and that their chest pain had a non-cardiac cause.

Some researchers have concluded that chest pain and chest discomfort in women is common but is not always cardiac in origin leading to the conclusion that chest pain in women is sometimes benign. For example, Sullivan et al (1994) discovered that 41% of women referred with chest pain had normal coronary arteries compared with 8% of men leading the authors to claim that chest pain is a relatively benign symptom in a significant number of women (Sullivan 1994). However, this view is contested by others notably Wenger (1994), Dempsey et al (1995) and Heid and Schmeltzer (2004).

Other studies have shown no difference in the experience of chest pain during MI claiming that there is no significant difference between men and women in terms of chest pain during an MI (Willich et al 1993, Milner et al 1999, Zucker et al 1997) rather, that there is a gender difference in chest pain interpretation.

DeVon et al (2002) conclude a review of cardiac symptom literature that, although women and men indicate that they experience the same cardiac chest pain symptoms, it is the delay in reporting symptoms that appears to be involved in creating cardiac symptom gender differences. One needs to question why the phenomenon of delay in seeking help continues to occur in women. It may be possible that the lack of knowledge on the part of the women contributes to this misinterpretation and that the delay in seeking help seen in my participants was due to misunderstanding the signs and symptoms of an acute cardiac event. Ruston et al (1998) undertook a study of 43 post-MI men and women and discovered that the majority of those studied stated that their experience of having an MI was different from what they expected, anticipating an acute and total collapse rather than an event where by they could still function, albeit on a reduced basis. Thus, expectations and knowledge about how an MI presents might have contributed to delay in seeking help especially if symptoms were not correctly recognised. However, whilst this is a possibility, research suggests that lack of knowledge, on its own, cannot provide a full explanation to account for delay in seeking help for acute chest pain.

Lockyer (2002), for example, maintains that knowledge itself does not necessarily mean that individuals experiencing an MI will correctly identify the classic signs and symptoms of an MI or act upon them and this was seen in my study. One participant in my study was a qualified nurse, yet, initially, she did not recognise her chest pain as cardiac in origin and even when she did suspect a cardiac problem she chose to take large quantities of antacids and retire to bed before she even considered calling for medical assistance some hours later. Thus, lack of knowledge about cardiac symptoms, alone, cannot fully explain why women in my study delayed seeking help for their chest pain.

Previous research has shown that other factors are involved in women's decisions to seek help for cardiac pain / chest discomfort. These include a desire to maintain control, concerns for loved ones and competing social roles. Dempsey et al (1995) demonstrated that women are sceptical about their risk of developing heart disease because of mis-informed beliefs about heart disease, a desire to maintain control over their experience and the perception that heart disease is a 'male' problem. Dempsey et al (1995) explored the psychological processes by which women make the decision to seek care for the symptoms

of acute myocardial infarction. Using a grounded theory method sixteen women who were hospitalized for MI were interviewed. Interviews were conducted until a full range of categories was obtained and then saturated.

Validity in qualitative research may be considered as the extent to which a phenomenon is captured and reflected in the data. In Dempsey et al's (1995) study, emerging categories were shared with each informant during the interview. Each informant was asked if the description and understanding of their experience was correct. If the answer was yes, constant comparative analysis was completed with that informant and validity was assured. If the answer was no, the informant was asked what needed to be added to make an understanding of the experience more complete. Results showed that the psychosocial processes by which women with symptoms of MI made the decision to seek treatment were both dynamic and multidimensional. The structure for this decision making involved two core categories: 1) maintaining control and 2) relinquishing control.

Within these two core categories, related to control, there were five subcategories: symptom awareness, perceived insignificance, self-treatment, perceived threat, and lay consultation. When confronted with the symptoms of MI the women universally acknowledged their symptoms as a state different from normal (symptom awareness), but did not acknowledge that the symptoms needed immediate action (perceived insignificance) and sought relief with a variety of mechanisms (self-treatment). As symptoms continued unabated or grew more severe, participants reported recognising the threat to their well-being (perceived threat). They began relinquishing control by seeking lay consultation, which resulted in seeking treatment for symptoms.

In discussing their findings, Demsey et al (1995) maintain that a number of factors affect women's decision making processes when seeking help for symptoms of an MI. For example, the women in the study attempted to maintain control over their own lives and own symptoms by self medicating and self caring. This resulted in an increased delay to seeking help. Many of the participants in my study also sought to self medicate and to look for a non-cardiac origin for their chest pain. They too attempted to maintain control over

their situation even when their symptoms had rendered them unable to function normally.

In a similar piece of research, Rosenfeld and Gilkeson (2000) undertook a grounded theory study to describe the meanings of acute cardiac events and cardiac illness for women with coronary heart disease. The sample consisted of 6 purposefully chosen women.

Semi-structured interviews were conducted with data collection and data analysis being based upon that of grounded theory. Analysing their results, Rosenfeld and Gilkeson (2000) maintain that the meaning of illness for women with coronary heart disease evolves and changes over time in a process they termed seeking understanding. Some of the study's findings echo those of previous research in that women were seen to engage in many behaviours crucial to their survival and health, including deciding whether or not to call for help for chest symptoms. Further, Rosenfeld and Gilkeson (2000) state that denial was a common response to initial cardiac symptoms. This denial was defined as 'a state of not acknowledging the meaning of symptoms, minimising, ignoring or attributing them to something else.' Other important findings included: women initially trying to understand their symptoms and women comparing their symptoms with those of male friends who had suffered from heart disease in the past.

My study supports these findings in that the state of 'not acknowledging the meaning of symptoms' was seen in all but one member of my sample and a number did compare their symptoms to those of male family and friends who had suffered an MI in the past.

Rosenfeld and Gilkeson's (2000) study is similar to that of Dempsey et al's (1995). However, Rosenfeld and Gilkeson's study followed women over a three month period, whereas Dempsey et al (1995) interviewed women during their acute hospitalization phase only. Rosenfeld and Gilkeson (2000) maintain that:

"The perspective of time allowed women to reflect on their responses and also revealed that women with known CHD repeated the same initial processes of acknowledging, denial, and being scared, rather than seeking immediate medical attention for recurrent coronary symptoms." (Rosenfeld and Gilkeson, 2000: 10).

Further, Rosenfeld and Gilkeson (2000) state:

“Because prior experience does not compel women to seek immediate attention for coronary symptoms it is important to explore the psycho-behavioural processes used by these women in their decision making. Such an understanding can be used to sensitize health care professionals to the experiences of women with CHD” (Rosenfeld and Gilkeson, 2000: 11).

Rosenfeld and Gilkeson’s (2000) study demonstrates the complex processes involved in delaying help for chest pain.

According to Foster and Malik (1998) and Emilsie (2005) another reason for the delay in seeking help seen in women is that women often view their own health as a low priority compared with members of their family. Others assert that the demands made upon women mean that they often prioritise the need to care for others and the home over their own health needs (Schoenberg et al 2003). Using a grounded theory approach, Schoenberg et al (2003) interviewed 40 women with coronary heart disease to explore the phenomenon of prolonged time elapse between symptom presentation and treatment. Whilst they acknowledge individual responsibilities as being involved in deciding whether to seek medical assistance for heart disease symptoms, the authors maintain that health seeking decisions made by women are linked to broader social and structural constraints, especially “male standardised” cardiac symptoms which can confuse women and hinder symptom detection and interpretation and the competing social demands made upon women, especially in the home.

Schoenberg et al (2003) also maintain that because household duties were considered so important by the female members of their sample, many ignored their cardiac symptoms with one participant saying that:

“Things do not function if the mother’s not there; mother’s never supposed to be sick. She’s always supposed to be there...” (Schoenberg, 2003: 277).

I was often informed that the reason why a particular participant had delayed phoning for medical help was that they were concerned about who would care for a dependent loved one or spouse. Further, a number of the women stated that they were concerned about worrying the doctor and other medical staff

whilst others voiced their concern at being a 'pain' or a 'nuisance' and this is consistent with Pattenden et al (2002) who found that some patients, both men and women, were worried about calling a doctor or ambulance at the onset of chest pain in case of a false alarm.

Using a phenomenological approach Svedlund et al (2001) interviewed ten post-MI women in order to explore the experience of acute myocardial infarction. Results revealed that for the women in this study experiencing an acute MI induced feelings of being dependent upon others, especially if pain was severe. This dependency led to a feeling of being insulted, in that the women felt degraded at not being able to care for themselves or others, especially if they were the family's main carer. Findings suggest that the women avoided telling relatives about their feeling ill out of concern for them and for fear of not being allowed to undertake what they perceived as their normal household roles. The women attempted to ignore their symptoms and play down their significance in an attempt to convince others that they were alright. The authors claim that the women they studied were uncomfortable about seeking help and caught between a desire to maintain control over their situation with the realisation that they did actually need help.

A number of participants who took part in my study alluded to feeling guilty and to feeling that they had let their family down in some way. Certainly, many felt the need to play down their cardiac pain in an attempt to continue caring for loved ones and pursue household chores and this is consistent with the findings of Svedlund et al (2001).

Some researchers question this 'carer role' as being significant in the decision making process regarding seeking medical help for cardiac symptoms. Holliday et al (2000) undertook a grounded theory study to explore women's experience of myocardial infarction. Sixteen women were interviewed and questioned about what influenced their decisions to seek medical help. The authors assert that the traditional role of the carer who puts others first did not emerge as a significant factor in decision making. Rather, the most important factors to emerge was that of correctly recognising the signs and symptoms of MI and an acknowledgment that symptoms were interpreted in light of previous experiences with pain and beliefs about myocardial disease and its presenting

symptoms. They further state that in contrast to the findings of Dempsey et al (1995) the desire to maintain control over the situation did not emerge as a significant influence. For Holliday et al (2000) personal health beliefs were the most important factor in affecting decisions to seek medical help.

Both Dempsey et al (1995) and Holliday et al (2000) relate their findings to Leventhal's (1984) self-regulatory model of illness behaviour. This model was developed to explain symptom representation and help-seeking behaviour. The authors maintain that the decision-making processes of the women in the study were influenced by what Leventhal calls abstract knowledge (Semantic memory) and previous relevant experiences (episodic memory). However, as Dempsey et al (1995) noted, based on the self-regulation model of illness in which a previous experience with the same illness (episodic memory) influences an individual's representation of the illness, it might have been predicted that having had a previous MI would have enhance the ability of women to accurately label the symptoms as cardiac in origin. However, this was not the case for the four women in the Dempsey et al (1995) study who had had a previous MI but who still delayed seeking medical assistance. Thus, although helpful and illuminating in terms of health beliefs, models such as those developed by Leventhal (1984) are limited in exploring decision-making processes.

Delays in seeking help for chest pain / chest discomfort would seem to be influenced by many psychosocial phenomena. Previous research has acknowledged and demonstrated that women tend to delay seeking help for chest pain longer than men (Dempsey et al 1995, Dracup et al 1995, Dracup and Moser 1997, Holliday 2000, Schoenberg et al 2003) with many factors and complex psychosocial processes involved in decisions about seeking help.

For the participants in my study beliefs about who can experience an MI, symptom uncertainty, wanting to maintain control and seeking to maintain carer responsibilities emerged as factors influencing decisions to seek medical assistance for chest pain or chest discomfort. As such my study supports Dempsey et al's (1995) findings in demonstrating that a common response of the women to chest pain / discomfort was to attribute these symptoms to a less threatening cause. The women also appeared to maintain control over their

situation. Further, women in my study also demonstrated that their decisions to seek medical help for chest pain were influenced by concerns over loved ones and worries over household responsibilities. Participants were concerned that loved ones and / or household duties would be neglected if they were to be hospitalised. These issues are consistent with the findings of Svedlund et al (2001) and Schoenberg et al (2003). It is worth noting, here, that some of these complex psychosocial processes involved in influencing decisions to seek initial assistance were also involved in decisions about attending for post-MI CR, and this will be discussed later in this chapter (pages 222 – 228).

5.6.2 Not being able to take part / barriers to participation

The other inhibitive intervening condition to emerge during my study was that of not being able to take part in a particular rehabilitation session. Although all 25 participants in my study completed their rehabilitation programme successfully, occasionally participants were prevented from attending a particular class or session by one of the rehabilitation barriers identified in my study. However, these 'barriers' did not prove to be too significant for my sample in that their impact on preventing continued attendance was minimal. Very few of the factors inhibiting CR attendance identified in previous research studies emerged in my study. Before discussing the two inhibiting factors that did emerge in my study, it is worth exploring some of this previous research literature.

Despite the stated benefits of CR, there is evidence to suggest that within the UK, uptake and adherence to CR programmes is low, especially among the female population. According to Harlan et al (1995) and Beswick et al (2005) people who do not participate in CR often have greater degrees of functional impairment and are the ones most in need of, and most likely to benefit from, what CR can offer. According to Beswick et al (2005):

"As recently as 2000, the overall uptake of rehabilitation by acute myocardial infarction, coronary artery bypass graft (CABG) and percutaneous transluminal coronary angioplasty (PTCA) patients in the UK was estimated at only 17%, 44% and 6%, respectively." (Beswick et al, 2005: 12).

According to the University of York's (1998) review of CR programmes, rates of uptake of CR range from 15% to 59%. Likewise, CR programme drop-out rates vary from 10%-45% (University of York, 1998).

Oldridge (1982) showed that between 20-25% of patients drop out of exercise based CR programmes within the first three months and, more recently, Beswick et al (2004) found that provision of outpatient CR in the UK is low with this study showing that the referral and attendance rates of older people and women at CR tended to be below that recommended by the UK Department of Health. The researchers also suggested that patients from ethnic minorities were less likely to be referred and/or adhere to CR programmes. A number of factors are thought to be involved in affecting CR programme attendance and continuation. These include the socio-economic status of patients (Pell et al 1996), level of patient education (Ades et al 1992), level of spouse involvement (Dracup et al 1984) and motivational levels of patients (Gori et al 1984).

In a literature review conducted by Daly et al (2002) a number of barriers to both CR uptake and adherence were identified. These included: lack of referral by physicians, associated illness, perceived benefits of CR, distance and transportation to CR centre, motivation, family composition, social support, self-esteem, and occupation. Further, the factors that impacted upon adherence included being older, female gender, having fewer years of formal education, perceiving the benefits of CR, having angina, and being less physically active during leisure time (Daly et al 2002).

In a study designed to examine patients' beliefs and decision-making about CR programmes, Clarke et al (2004) undertook a qualitative study and interviewed 44 post CR patients (33 men, 11 women) in eight focus groups. Focus groups contained a mixture of CR attendees and CR non-attendees. Analysis of the data included coding the transcripts of the focus groups and developing categories. Categories related to: health beliefs, beliefs about CR and beliefs about CR staff. Those patients who had decided not to attend for CR held certain beliefs about their coronary heart disease, believed that CR was of little benefit and believed that staff gave too much and inconsistent health information. Concluding, their research, Clarke et al (2004) maintain that many

of the CR non-attendees held false beliefs about heart disease and the benefits of CR.

Given the qualitative nature of this piece of research, generalisability is not possible. Further, one has to question the mixing of attendees with non-attendees in such a study. However, other studies support the findings of Clark et al (2004), suggesting that personal beliefs can influence attendance at CR programmes (Petrie et al 1996, Johnson and Heller 1998, Pell and Morrison 1998 and Cooper et al 2005).

Leong et al (2004) undertook a study to examine the level of adherence to post-MI CR in 52 patients. A structured questionnaire was used to measure patient adherence to changes in diet, smoking, weight loss, physical exercise and alcohol use. Key predictors of adherence were found to be the extent family members encouraged patients to follow health advice in relation to following a healthy diet, health locus of control (powerful other) in relation to adherence with weight loss, past medical history and anxiety. The authors concluded their research by recommending that families should be part of CR programmes as they can influence adherence, and beliefs or personality characteristics that influence adherence should be assessed in post-MI patients in order to identify who is more likely to be non-adherent.

False beliefs about CR were also discovered by Cooper et al (2005) in a qualitative study to investigate patients' beliefs about CR. Using in-depth semi-structured interviews Cooper et al (2005) interviewed 13 patients after discharge from hospital following myocardial infarction, but prior to attendance at CR. It was discovered that patients' beliefs about CR act as barriers to CR programme attendance. Whilst some patients viewed CR as an important and necessary part of recovery, others expressed doubt that it was appropriate for them. Some patients were uncertain of the course content and misunderstood the role of exercise and its perceived effects. Misconceptions with regard to cardiac knowledge were also apparent. The combination of erroneous beliefs about CR and cardiac misconceptions seemed to result in doubts regarding attendance. Cooper et al (2005) concluded their research by suggesting that further research is needed to clarify the extent to which beliefs may contribute to decisions about attending CR programmes post-MI.

I have summarised the main factors to emerge from the literature that influence attendance to post-MI CR programmes in table 5.1 below:

Factors affecting continued attendance	Factors affecting CR referral and attendance
Socio-economic status of patients	Lack of referral by physicians
Level of patient education	Associated illness
Level of spouse involvement	Perceived benefits of CR
Motivational level of patients	Distance and transportation to CR centre
Family Support	Motivation / Self-esteem
	Family composition
	Social support
	Occupation

Table 5.1 Factors affecting CR Referral and Attendance

Despite what the research, discussed above, says about the barriers to CR participation, none of the 25 participants in my study missed more than two class sessions during their entire rehabilitation programme. None stated that they deliberately missed a session because of a lack of motivation, interest or because of boredom. Further, participants often spoke of being determined to complete their rehabilitation in spite of the occasional hindrances affecting attendance. The two factors in my study that were found to, occasionally, hinder CR attendance were identified as being 1) transportation problems and 2) competing commitments.

Many, but not all, of my participants were taken to and from rehabilitation classes by ambulance and so transportation was not usually a factor inhibiting attendance. However, seven participants did not use the ambulance service provided by their NHS Trust and so they relied upon either public or other means of transportation. Thow et al (2000), Thow (2001) and Watson (2002) have highlighted that transportation problems can hinder CR attendance in women stating that this problem is especially true in elderly patients. In those women I studied who did not travel to CR by ambulance it was the case that public transportation problems sometimes prevented them from attending. Likewise, depending upon other family members for transport could also result in occasional missed attendance.

Sometimes participants complained that they were unable to attend because of prior engagements or competing family commitments, despite participants expressing that they worked hard to arrange family commitments around their rehabilitation. If a participant missed a session they often expressed concern at having missed out on something important and this would cause them some anxiety. I once overheard a participant talking with staff about 'catching-up' after having missed an educational session the previous week.

Previous research has also demonstrated that there are many other factors that can potentially prevent or hinder post-MI CR attendance in women. These include co-morbidities (Lieberman et al (1998), Halm et al 1999), the fact that women tend to be older, compared to men, when they experience MI (Wenger 1993), a long period of time between MI and the start of rehabilitation (Tod et al 2002) and lack of referral by a physician. Moore et al (2003) also claim that exercise regimes, as part of a structured post-MI CR programme are not well received by women and that women dislike the exercise component. If this were true then asking women to undertake exercise as part of their rehabilitation could adversely influence their attendance. However, none of these phenomena emerged as significant intervening conditions in my study. Although 23 participants were aged between 58 and 86 years of age and many had other medical conditions such as arthritis, asthma and/or diabetes, none of the participants ever suggested that these co-morbidities adversely affected their decision to attend for rehabilitation. Certainly, when analysing and coding data, nothing emerged that alluded to the impact of these co-morbidities on continued CR attendance. This is in contrast to previous research, for example Lieberman et al (1998), which suggests that co-morbidity is a significant factor in influencing women's decisions not to attend for post-MI CR. Likewise, age did not appear to be an intervening condition that affected participants' ability to attend.

Another significant factor, identified in my study, was that of how CR attendance was influenced by the help, advice and assistance participants received from rehabilitation staff and this contradicts previous research. For example, Benson et al (1997) interviewed 14 women about the care they received from health professionals after their MI. The women they interviewed complained that they found staff unhelpful and that they felt ignored. The

participants in my study, however, expressed that they found their rehabilitation staff very helpful and that their opinions and desires were addressed.

The two intervening conditions discussed above were categorised as inhibiting intervening conditions. Although the impact of these inhibiting conditions, on my participants' CR attendance was minimal, they, nevertheless, emerged during data analysis and coding and, as such, they warrant discussion.

During axial coding three facilitative intervening conditions were also identified. These being: Family & Friend Support, Expectations/Wanting to be Restored and Educational Material. These facilitative intervening conditions positively influenced and impacted upon participants' decisions to attend for post-MI CR and these are now discussed.

5.6.3 Family and Friend Support

Many participants stated that they received much help and support from their spouse and other family members following their MI. This support not only helped them to cope in the immediate few weeks after the event, but also positively influenced their decision to attend for rehabilitation. In a study by Lieberman et al (1998) exploring gender differences in factors influencing participation in CR programmes, it was found that women rated encouragement from their children as an important factor in their decision to attend for post-MI rehabilitation. Further, in Lieberman et al's (1998) study, women rated encouragement from their children and spouse as more important than the men did. For the participants in my study having a supportive spouse or children not only encouraged them to attend for rehabilitation but such encouragement was claimed to give the participants increased motivation to re-engage in previous everyday activities, which had been given up or suspended following their MI. Dickens et al (2004) suggests that lack of a close confidante or close family members post-MI is associated with adverse outcomes for heart patients. For the widows in my group the support from their children and friends was stated as being motivational and influential in deciding to attend.

Boogaard and Briody (1985) suggested that feeling guilty about having less time for family responsibilities was an important barrier influencing women's decisions not to attend post-MI CR. However, this was not supported by my study. Participants did not suggest that they felt guilty about attending their

twice weekly rehabilitation sessions; on the contrary, they felt assured that their family members would be pleased, especially given the perceived positive effects the rehabilitation had on them. Thus, in my study, concerns for family members / spouse emerged as a facilitative intervening condition in relation to attending post-MI CR.

Although participants stated that one of the reasons they initially delayed seeking help, when experiencing chest discomfort, was that they were concerned for the wellbeing of significant others, this concern did not seem to impact upon their subsequent decision to attend for their rehabilitation. This maybe because once the decision had been made to attend for rehabilitation, the women committed themselves 100% and did not allow themselves to be adversely influenced or prevented from attending. This is in contrast with previous research by Tod et al (2002) who found that whilst registered on a post-MI rehabilitation programme women were under pressure to return to their house, work and family responsibilities before their rehabilitation programme had completed. It is possible that concern for the wellbeing of other family members actually motivated the participants in my study to continue with their CR attendance in that, once better, they would, once again, be able to look after members of their family.

House et al (1988) refer to social support(s) as the functional nature or quality of social relationships and assert that support is one of the important contents or qualities of human relationships. Thus, for those members of my sample who were widowed or lived alone, coming to CR classes gave them the opportunity to form social relationships with others in a similar situation and this facilitated subsequent rehabilitation attendance. Further, Happ et al (1997) discovered that supportive family and friends decrease the risk of re-hospitalisation in patients with heart disease. Rather than preventing rehabilitation attendance, as some previous research suggested it might, the support of family and friends actually facilitated continued post-MI CR attendance in the women I studied.

5.6.4 Expectations / Wanting to be restored

During data analysis it emerged that expectations of CR held by the participants was also another intervening condition that facilitated post-MI CR attendance. All 25 participants stated that they received a visit from a specialist CR nurse

whilst in hospital, prior to being discharged home. The rehabilitation nurse provided participants with information about CR and what it would involve. As such, women in my study stated that they had held certain expectations about what their rehabilitation would entail, before they started it. They believed that their rehabilitation was going to be beneficial, involve education classes and exercise regimens. They stated that they had anticipated gaining useful knowledge and that they were going to be given the opportunity to exercise and 'get fit' again.

Participants stated that their expectations of the positive benefits of rehabilitation motivated them to attend for their CR programme and this supports previous research related to expectations and CR attendance. For example, Lau-Walker (2004) found that MI patient's expectations about their rehabilitation were an important factor in influencing attendance. Lau-Walker (2004) asserts that:

"...patients' actions are determined by their beliefs and expectations, some of which are pre-existing and others created by what is said and done during their contact with health professionals." (Lau-Walker, 2004: 11).

Participants claimed that the visit they received from a CR nurse raised their expectations about their recovery. This meant that during the time between discharge home and the start of their rehabilitation, participants had time to ponder what they wanted to achieve from their rehabilitation programme. Participants would later claim that, on the whole, their expectations about their rehabilitation had been met. What is important, here, is that having expectations about what rehabilitation would entail, and then having these expectations fulfilled and being able to achieve personal goals, positively affected CR attendance.

Closely linked with expectations about CR were issues surrounding wanting to get better. Many members of my sample claimed that their perceived physical and psychological consequences of having an MI, their altered Self, instilled in them a desire to 'get better' and 'restore' themselves. This 'wanting to get better' emerged as a recurrent theme during data analysis. Participants even stated that after discharge home from hospital they looked forward to starting

their rehabilitation because this would help them achieve personal goals. There is a whole body of expectancy literature demonstrating that expectancy plays an important role in social learning and health seeking behaviour, with expectancy being shown to predict recovery of function in rehabilitation (Johnson et al 1995, Bandura 1997, Bennett et al 1999).

Research by Bennett and Connell (1999) suggests that early intervention by health care professionals can positively shape patients' expectations and health seeking behaviour which can further influence recovery. Related to this is Bandura's (1997) Self Efficacy Theory. This claims that the choices individuals make about their health behaviours, the effort they put into those choices and the length of time choices are pursued can influence behaviour and reflects the belief that one can successfully execute the behaviour required to produce a desired outcome. Further, Self efficacy can, in part, be influenced by others, especially health care professionals and being given the opportunity to master and achieve personal goals (Bandura 1997). According to Jeng and Braun (1994) Bandura's Self-efficacy theory is considered a suitable model for CR because it:

"...provides a systematic direction which allows one to interpret, modify, and predict patients' behaviours. (Jeng and Braun, 1994: 1).

Bandura's Self Efficacy Theory asserts that, when compared with persons who doubt their abilities, those who feel Self-efficacious about undertaking tasks competently are apt to work harder and longer to achieve their goals. This could be used to partly explain participants' attendance at CR classes. Several studies have shown that Self-efficacy can influence cardiac patients' health seeking behaviour and CR attendance (Lemanski 1990, Carlson et al 2001, Scholz et al 2005). However, in this research study I did not measure Self-efficacy using any established Self-efficacy questionnaire and, therefore, I cannot comment on whether Self efficacy influenced attendance or not. Despite this, however, participants' comments do suggest that their expectations and health beliefs about what their rehabilitation programme would entail positively influenced their CR attendance.

Results from previous research about CR attendance have shown that patients who are characterised as having greater Self-efficacy and those who have

more social support will attend and successfully complete their CR programme (Blumenthal et al 1982, Oldridge and Stoedefalke 1984, Oldridge and Rogowski 1990, Rhodes et al 1992). However, these conclusions are questioned by others. For example, King et al (2000) question the role of social support, Self efficacy and motivation in facilitating CR attendance. The researchers administered Self-efficacy expectation scales, a Self-motivation inventory and a shortened social support scale to 304 post-MI patients who had been discharged from hospital. Although those patients (six months post discharge) who had attended CR programmes showed significantly higher scores for Self-efficacy than those who did not, neither motivation nor social support scores changed significantly over time. Nor were these associated with increased CR attendance, either as a factor that predisposed patients to attend or one that changed as a result of attendance. This research would appear to question the roles of both motivation and social support in influencing post-MI CR attendance.

In my study, however, expectations about the beneficial effects of CR emerged from analysis of data to reveal that expectations positively affected post-MI CR attendance.

5.6.5 Educational material

During data analysis another recurrent theme that was subsequently identified as a facilitative intervening condition was that of the nature of the educational materials given to participants whilst at CR. In terms of seeking knowledge about what had happened to them, women in my study stated that they had many unanswered questions about their MI before they started their rehabilitation. They said that this provided some of the motivation to seek out answers, either from friends, family, the internet or professional staff at CR classes.

Participants often repeatedly stated that attending their CR programme gave them the opportunity to gain a greater understanding of their condition and this enabled them to comprehend what had happened to them in greater detail. Participants had stated that not fully understanding the myocardial infarction process contributed to their sense of anxiety, disbelief and shock post infarction. Bethell (1995) maintains that providing good education about heart

disease, myocardial infarction and health lifestyle should form part of any CR programme. As part of their rehabilitation programme a number of educational methods had been employed by staff which included taught sessions and the distribution of printed educational material. Participants stated that the manner in which teaching was delivered at CR and the printed material made understanding what had happened to them easier and this, ultimately, contributed to increasing their knowledge.

The educational material and information given to participants whilst still in hospital one-two days post-MI was stated as being “too technical” or “too difficult” to take in or understand. Conversely, participants stated that educational material given to them as part of their post-MI rehabilitation was “easy to understand” and facilitated their understanding of their condition. The educational material and information received, as part of their rehabilitation programme, was identified in this study as a facilitative intervening condition. However, a number of points need to be addressed, here. Firstly, participants stated that printed material given to them whilst they were still in hospital was difficult to understand, but, perhaps, this was due to the fact that they were still in hospital, only hours after having a major illness event. Under such conditions any written material(s) might have been perceived as difficult to understand. It may have been the timing of receiving educational material / information that adversely affected how this material was received in hospital, rather than the actual material itself.

In some cases, participants attended their phase three rehabilitation four – six weeks post-MI. Thus, it is possible that this period of time, from MI to the start of rehabilitation, meant that participants were better able and were much more ready to receive educational material than they were immediately post infarction. Despite this, it could still be argued that the educational material given to participants in hospital was just too difficult to follow, whereas within the rehabilitation centres, where this study was undertaken, a variety of written materials were used. These were different from the materials initially given to participants whilst in hospital and these were, according to participants, much easier to understand and follow.

This contradicts previous research into educational material and CR attendance. For example, Johnson and Stern (2004) report that in their study exploring the readability levels of 60 CR centres' written educational material, 52 out of the 60 centres had educational material that contained higher than recommended readability levels. The large numbers of polysyllabic words found in much of the rehabilitation literature was implicated as the main culprit for difficult readability levels sometimes experienced by post-MI CR patients. Nonetheless, participants in my study claimed that the material they received was useful and much easier to understand than the material and information they received immediately post infarction. Educational material emerged as another phenomenon that facilitated participants' understanding and this influenced participants' continued attendance to post-MI CR.

The intervening conditions, discussed above, all influenced the action of continued attendance at post-MI CR programmes. The next component part of the paradigm model explores this action, attendance at CR, in more detail.

5.7 Actions/Interactions

Actions and interactions are what people engage in and undertake in order to deal with problems and occurrences. Strauss and Corbin (1998) state that actions and interaction are the:

*"...purposeful or deliberate acts that are taken to resolve a problem and in doing so shape the phenomenon in some way."
(Strauss and Corbin, 1998: 133).*

Actions and interactions denote what goes on among individuals, groups and organisations. In this study, actions/interactions related to the ways in which the post-MI CR women responded to and dealt with the causal condition (experiencing an MI) and the facilitative and inhibitive intervening conditions which affected attendance. That is to say, actions and interactions in this study related to how the women dealt with the effects of their MI, their subsequent altered sense of Self and the intervening conditions. Ultimately, the most significant action was their attendance and continued attendance at post-MI CR and their engagement with both the educational and physical components of their rehabilitation programme. As a result of attending for their post-MI CR the women in my study were given the opportunity to address, deal with and cope

with the consequences of having an MI and this, ultimately, enabled them to restore their sense of Self.

The action of attending for post-MI CR, and their interaction with others during rehabilitation classes, empowered the women to restore themselves and this restorative process helped explain why the women in my study continued to attend post-MI CR. I hope to demonstrate that the empowering and restorative nature of CR can explain why the 25 women in my study attended for and continued to attend for their post-MI CR. This is further explored in the second half of this chapter (see pages 230-235). First, however, some of the other pertinent literature relating to CR attendance will be explored, as some of my findings are in contrast with the findings of previous studies.

From the analysis of data obtained from my study the actions and interactions engaged in by the 25 participants, during their rehabilitation period, included the following:

- Continued attendance at and engagement with CR programme classes
- Information Seeking & Information Sharing
- Interactions with fellow patients / staff

Although there were two significant intervening conditions affecting continued CR attendance, discussed above, one of the key findings of my study was that all 25 women continued to attend, and successfully completed, their CR programme, with all 25 women engaging in CR classes and successfully seeking information. Not one of the 25 women dropped out of their rehabilitation programme early. All remained committed to successfully completing their programme, with many women stating that they enjoyed all aspects of their rehabilitation, especially the exercise component. This is in contrast with some of the established research literature which has investigated the attendance, and continued attendance, of women to post-MI CR programmes.

5.7.1 Women and Cardiac Rehabilitation (2)

There have been a number of other research studies aimed at exploring the reasons why women appear to attend and adhere less to CR programmes than

men. For example, Farley et al (2003) investigated factors influencing attendance at CR among coronary heart disease patients. Results showed that men who had a sedentary lifestyle or were obese were significantly more likely to attend CR. Women were significantly more likely to attend CR if they had a partner. Patients reported numerous personal reasons for their non-attendance, some of which reflect a dislike of a group format.

The authors concluded their study by claiming that the results show that the presence of obstacles to attendance and completion of CR may differ for men and women and that innovative approaches are needed to encourage CR programme participation. Similar to Farley et al's study (2003), participants in my study stated that the support they received from family members was an important factor in facilitating their continued attendance at CR. However, attendance and successful completion was also seen in those research participants who were widowed and who lived alone. For these widowed participants support from a partner was not possible. Therefore, the opportunity to engage with others on a CR programme on a regular basis might have been a significant contributing factor in facilitating their attendance.

Brezinka et al (1998) concedes that low participation rates of women in CR programmes may also be attributed to social inhibitions in that the female patients may feel uneasy, unhappy and insecure in situations with unfamiliar people. However, this explanation is not supported by the findings in my study, where, rather than inhibiting CR attendance, the presence of others at rehabilitation classes actively facilitated attendance. For example, many of the 25 women stated that meeting other women, who had had a similar cardiac experience, helped motivate them to attend and continue to attend for their CR. Further, none of the 25 participants stated that they felt uneasy, unhappy, and insecure in situations which were, initially, unfamiliar. Nor was the presence of male CR patients stated as a concern.

Bittner and Sanderson (2003) maintain that women on CR programmes tend to be older than their male counterparts and to have a greater burden of co-morbidities and coronary risk factors and lower functional status and that these can explain the lower CR completion rates in women. However, in this study, neither age nor co-morbidities were stated as significant factors affecting CR

attendance or completion. Specifically, during data analysis no codes, concepts or categories emerged that could have suggested that age or co-morbidities impacted negatively upon participants' continued attendance.

In a review of fifteen CR studies, Cooper et al (2002) noted that CR predictor variables were usually categorised into socio-demographic, medical and psychological categories. The authors concluded their review maintaining that CR non-attenders were more likely to be older women, to have lower income/greater deprivation and tended to deny the severity of their cardiac illness. Further, the same authors maintain that non-attenders were less likely to believe they could influence the outcome of their rehabilitation. The higher co-morbidity in women, they suggest, not only affected lower referral rates to CR programmes, but it also decreased their likelihood of continued attendance (Cooper et al 2002). However, as previously stated, in this study age and co-morbidity did not emerge as significant factors in preventing rehabilitation attendance. Instead, the effects of an MI on the women and the alterations to their sense of Self experienced post-MI appears to have actually encouraged attendance rather than to have discouraged it.

A number of studies have examined the relationship between anxiety, depression, gender and CR adherence. For example, Davidson (2002) reviewed literature on CR and women and noted that women post-MI have greater psychological morbidity compared with men and that this might account for the higher drop-out rate seen in women. However, in my study, suffering psychologically from the effects of an MI acted as a motivator for CR attendance, rather than as a barrier.

Brezinka et al (1998) wanted to ascertain whether women report a lower level of physical functioning and a higher degree of psychosocial impairment than men on a structured CR programme. 109 male and 122 female patients (matched for age) with a diagnosis of myocardial infarction, coronary artery bypass grafting, or coronary angioplasty were assessed at entry into a multidisciplinary outpatient rehabilitation programme. Information was retrieved from hospital records, a semi-structured interview, and several psychological questionnaires. Variables of physical functioning included perceived exercise tolerance, functional complaints, psychosomatic complaints, and sleeping

disturbances. Variables of psychosocial impairment included anxiety, depression, vital exhaustion, well-being, feelings of being disabled, displeasure, and social inhibition.

Results showed that at programme entry, there were no significant differences in age, coronary risk factors, coronary incident, or medication between genders. However, women reported significantly lower perceived exercise tolerance and significantly more functional and psychosomatic complaints. Moreover, women were significantly more anxious and scored significantly higher on social inhibition and vital exhaustion than men. Concluding their research, the authors state that women's higher degree of psychosocial impairment and their lower level of physical functioning, when compared to male patients, means that CR programmes should address the specific need of women participants.

Moore et al (1998) undertook a study to discover women's patterns of exercise following post-MI CR. Forty women who had a myocardial infarction or had undergone coronary artery bypass graft (CABG) surgery were recruited through convenience sampling immediately after completion of a phase II CR program. Exercise frequency, duration, and intensity were measured using wristwatch heart rate (HR) monitors during exercise for 3 months. Results from the sample of forty women indicated that 12 of 40 (30%) women exercised five times or fewer during the 3-month study period. Only 11 women (27.5%) exercised three or more times per week. Women exercised an average of 5.2 sessions within their target HR during the entire study period. Maintenance of exercise dropped consistently during the course of the study. Although 83% of the participating women started exercising during the first month, after one month one third of the participants had stopped exercising. During the last week of the study, only 50% of the women were still exercising.

The authors concluded that women were exercising well below the recommended guidelines for exercise after an acute cardiac event. Gallagher et al (2003) discovered that women were less likely to adhere to any post-MI CR exercise guidelines. However, the issue of exercise regimens, as part of CR, and whether they adversely influence women's decisions to attend for rehabilitation, is not clear. For example, Moore (1996) identified three main features that women liked most about their CR programmes. These included,

feeling "safe" during exercise sessions because they were continuously monitored by staff, peer group support during rehabilitation programme and pleasant, encouraging staff.

In my study, participants stated that attending rehabilitation gave them the opportunity to engage with others and to form new friendships. Engaging in CR classes also gave the participants the opportunity to meet with others in a similar situation to their own; to discuss their cardiac illness and to share experiences. Further, participants also stated that being monitored during exercise sessions gave them the confidence to participate in further exercise sessions and the confidence to re-engage in activities they had pursued before their MI. Indeed, many participants stated that the exercise component was what they enjoyed most about their CR programme. This is in contrast to previous research which has suggested that despite the benefits that can be gained through exercising, exercise sessions are the one aspect of CR that women do not like (Schuster et al 1995, Moore and Kramer 1996, Moore et al, 1998, Moore et al 2003).

The women who took part in my study, however, said that it was the exercise element that they most enjoyed about their rehabilitation. This might be explained by the constant reassurance and advice offered by experienced staff at CR classes, not available when exercising independently at home. This is not to say that participants only willingly engaged in exercise whilst at the rehabilitation centre; many participants stated that the increased confidence they received, through engaging in physical exercise, meant that they felt more confident to pursue activities at home. In contrast to previous research the 25 women in my study continued their attendance and engaged with CR programme classes, seeking and sharing information and interacting with fellow patients and staff. The consequences of these 'actions' meant that the women were able to restore their sense of Self. Further, this restorative process facilitated continued CR attendance.

5.8 Consequences

According to Strauss and Corbin (1998) the actions/interactions taken in response to any conditions can result in a number of consequences. Using the Straussian paradigm model, consequences can be seen to be the results from

the actions and interactions people undertake in order to engage with one another and deal with problems and occurrences, such as, for example, dealing with the effects of having had an MI. In this study, the consequences of attending for and engaging in post-MI CR, with seeking and sharing information and with the interacting with staff and fellow patients were developed into the following consequence-categories:

- Empowerment:
- Increased understanding / knowledge of condition
- Improved confidence
- Formation of friendships
- Resumption of activities, hobbies & lifestyle
- 'Restoration of Self'

Using the paradigm model, I became aware that some of the categories that had been developed during open coding were, in fact, consequences of the action of attending for CR. Here, again, the use of the Straussian paradigm model had allowed me to explore how categories were related to each other and aided theory development. Attending for rehabilitation resulted in a number of beneficial consequences and one of these would be, eventually, developed into the core category.

5.8.1 Beneficial Consequences of Attending CR

Attending post-MI CR can improve a patient's physical function and psychological wellbeing (Angus and Grey 2004, Tsai et al 2005). Although this study was not about demonstrating physical improvement achieved by attending CR, participants expressed that they felt physically fitter and physically restored as a result of the classes.

Many research studies have demonstrated the physical and psychological benefits of attending CR (O'Conner et al 1989, Linden 1995, Oldridge et al 1988, Taylor et al 2004, Angus and Grey 2004). For example, Michie et al (2005) found that attending for post-MI CR reduces both anxiety and

depression and can increase perceived control over illness and confidence. They further suggest that CR can address the psychological changes that can occur following an MI thus improving health outcomes.

Although the studies, above, contained men, there is evidence to show that women who attend post-MI CR programmes can experience similar physical and psychological benefits as do men. For example, Ades et al (1992) examined the exercise capacity of men and women post-MI and discovered that women's exercise capacity improved in line with those of male patients. Further, Cannistra et al (1992) explored the outcome of women in CR in terms of cardiovascular improvements and discovered that women achieved the same improvements in functional capacity as a result of CR training as did men. Further research by Lavie and Milani (1995), King (2000), McAlister et al (2001) and Clark et al (2003) all support the claim that CR benefits women as much as men.

Empirically determining the physical and psychological changes that can occur following attendance at CR programmes was beyond both the focus and scope of my research study. Rather, what emerged was the perception amongst the participants that, by attending post-MI rehabilitation, they were able to regain their physical strength and psychological confidence, strength and confidence that they had stated they had lost following their myocardial infarction. Being able to safely partake in physical activity and experiencing themselves becoming both physically and emotionally stronger positively reinforced participants' belief in their rehabilitation programme and influenced subsequent rehabilitation attendance. Participants repeatedly stated that their confidence was increased as a result of attending for rehabilitation, especially when they discovered that they could undertake far more exercise than they had previously thought. Participants also stated that being able to successfully undertake exercise at rehabilitation classes gave them the confidence to resume some of their other activities outside the rehabilitation classroom, re-engaging with hobbies and other physical activities that they had enjoyed prior to their MI.

Pharoah and Sanderson (1995), Thompson and Bowman (1997), McSherry et al (1999) and Warrington et al (2003) all maintain that structured CR can have a

positive effect upon CR participants' knowledge and understanding of their health. As Thompson and Bowman (1997) claim, health advice given to patients immediately after their MI can often be imprecise and is often misunderstood or forgotten about by the time the patient is discharged home. This means that education is an important part of post-MI rehabilitation and the participants in my study often stated that they valued the information and advice they received as part of their rehabilitation programme.

Accessing educational material, as part of their rehabilitation, meant participants became better informed about their cardiac condition. This knowledge and information further increased participants' sense of confidence, gave participants information enabling them to make lifestyle changes and positively influenced subsequent CR attendance. During data analysis and exploration of concepts I developed and coded this 'health information' and 'obtained knowledge' conceptualising it and coding it as a form of empowerment.

5.8.2 Empowerment

The participants' belief that CR had increased their understanding of their condition could be considered an example of what Nutbeam (1998) and Hubley (2002) term health empowerment. Health empowerment incorporates the affective, cognitive and psychomotor domains and consists of two key components, one of which is termed: Health Literacy. This term refers to the attainment of a certain level of knowledge necessary to improve health. Such knowledge is vital in enabling people to improve their health and in enabling them to pursue healthy behaviour. Hubley (2002) asserts that in terms of improving one's life, following an illness, it is not enough just to have increased confidence and / or the ability to restore oneself. Rather, the ability to employ confidence and restorative behaviour into actual improved health requires an understanding of health issues in order to make informed health decisions. Having the confidence to change one's life is a necessary requirement to health changing behaviour and without the requisite knowledge this process will be hindered. For Hubley (2002), health literacy can be achieved through the process of health education.

Through the analysis and axial coding of data collected from the post-MI women it was clear that participants increased their knowledge about heart disease and their own cardiac event and that this was a consequence of their attending for their CR programmes and by engaging in rehabilitation educational classes. A central factor in the process of empowerment is that people are then able to then use knowledge in order to change their lives. This was seen in all the participants of this study. What I mean by empowerment, is the ability of the women to gain knowledge, gain greater control over their lives and to be able to make informed choices about their health.

The claim that the participants had become 'empowered' is a substantial one. Nevertheless, what is clear is that as a result of attending post-MI rehabilitation participants claimed that they had attained a certain level of knowledge which enabled them to make decisions about their lives and about subsequent rehabilitation attendance.

Empowerment was to prove important both in terms of its effect upon the participant's Self restoration and in understanding why participants continued to attend their rehabilitation programme. Hubley (2002) maintains that many 'top-down' approaches to providing health information risk becoming disempowering, by creating dependency on health professionals, but participants in this study repeatedly stated that they had increased their understanding about what had happened and that this proved useful during post-MI restoration.

5.8.3 Friendship

The formation of friendships emerged as a category during data analysis with all 25 participants claiming to have made new friends whilst attending rehabilitation classes. This was especially significant for those participants who lived alone. Moore (1996) identified that peer group support and social interaction during CR were what women most liked about their CR programme. He also suggests that emotional support, from CR staff, is an important feature favoured by women. Further, Brezinka and Kittel (1996) have identified the importance of social support on influencing CR attendance in women. The formation of friendships was a significant phenomenon; it was an empowering experience and it facilitated the Self Restoration process. Writers such as Daly

(1985) and Raymond (1986), for example, claim that the feminine Self is related to, amongst other things, the formation of feminine (women-to-women) friendships and that this friendship process can assist in the re-creation and restoration of the feminine Self.

The same feminist writers and also Reinharz (1992) maintain that the feminine Self has been, throughout history, undermined, belittled and even dismembered and destroyed. They encourage women to re-create their authentic feminine Self. To do this, women are encouraged to pursue and develop women-to-women friendships. As Raymond (1986:5) maintains:

"...buried deep in the past, present and future of female existence is an original and primary attraction of women for women. ...it is manifested by many different women in many different ways. Women who have manifested and do manifest this affection for women initially care about their Selves and thus cherish the friendship of others like their Selves....Only the woman who is Self created can be an original woman, not fabricated by man, and a friend to other women." (Raymond, 1986: 5).

Forming friendships can counter what Raymond (1986) calls 'Hetero-reality.' Raymond (1986:3) defines 'Hetero-reality' as: *"...the world view that woman exists always in relation to man."* Further, Raymond (1986:3) maintains that Hetero-reality: *"...has consistently perceived women together as women alone."*

As an example of this hetero-reality, Raymond (1986:3) provides the following:

"I have actually seen a man walk up to four women sitting in a bar and say: 'Hey, what are you doing here sitting all alone?' The perception is that 'women' without men are women without company or companionship.

No matter how brilliant, creative or successful women are, women have traditionally been perceived to exist only in relation to men (Raymond 1986). However, if women actively seek out other women and form friendships and restore their feminine Selves, then this can bring about positive change in women's lives. Thus, Self and friendship seem to go hand-in-hand:

"...friendship begins with the affinity a woman has with her vital Self. A woman's Self is her original and most enduring friend. (Raymond, 1986: 5).

The formation of friendships was a central component of the process of 'Restoration of Self'. The process of Self restoration enabled my participants to challenge what Raymond (1986) refers to as hetero-reality and this furthered both the empowering nature of CR and the Self-restorative process. The friendships that were made by attending CR were not only significant for the women, but were also deep and meaningful and lasted beyond the length of the rehabilitation programme itself. A number of the women who took part in my study decided to form a post CR group, with the aim of meeting regularly once their phase three CR programme had officially finished. By attending post-MI CR, women formed friendships which further facilitated the restoration of their feminine Self.

5.9 Core Category: Restoration of Self

The core category, according to Strauss and Corbin (1998) is the category that answers to the question 'What is going on here?' In looking for phenomena:

"... the researcher is looking for repeated patterns of happenings, events or actions/interactions that represent what people do or say, alone or together, in response to the problems or situations in which they find themselves". (Strauss and Corbin, 1998: 130).

I already knew that the 25 participants had attended for their rehabilitation. What I wanted to know was why they had continued to attend. Thus, when considering the core category I asked myself; what was going on here that could explain this continued attendance?

The category that best answered this question, the *core* category that permeated all aspects of my data and which pulled together and made sense of all the developed categories was that of 'Restoration of Self.' Whilst experiencing, and suffering from, an MI was the initial causal condition for CR attendance once the women had started their rehabilitation, the Self restorative process was the phenomenon that influenced subsequent rehabilitation attendance. 'Restoration of Self' can account for why the women in my study continued to attend for the post-MI CR.

I became aware that there was a noticeable similarity in the constructed narratives of the post-MI women. This was that the narratives of all 25 women shared the characteristic of being a restorative narrative.

During axial coding, when I was exploring the relationships between categories, I placed this 'Restoration of Self' category under 'consequences' in the paradigm model process, because this, too, is what happened to the 25 participants in my study: they restored themselves; as a consequence of attending for post-MI rehabilitation participants experienced a form of Self restoration. This restoration process incorporated both physical restoration and psychological restoration. When I was exploring category and sub-category relationships further, I came to the conclusion that Empowerment, Increased Understanding / Knowledge of Condition, Increased Confidence, Formation of Friendships and the Resumption of Activities, were all component parts of the 'Restoration of Self' category; that these categories could be considered component parts of a 'Self restorative' process.

Thus, the main consequence of attending post-MI CR was a 'Restoration of Self', see diagram 5.1, below.

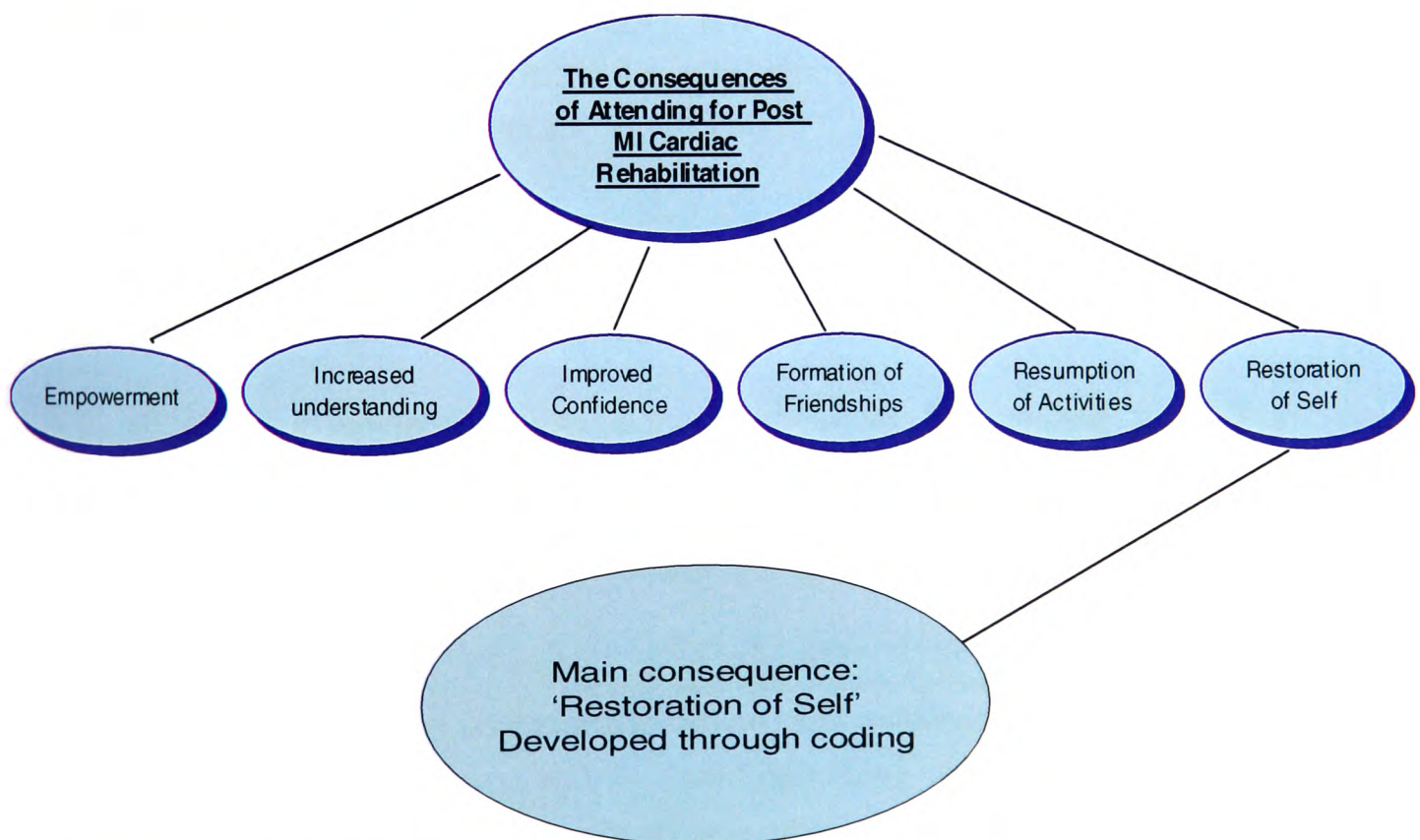


Diagram 5.1 Consequences of CR attendance

During selective coding 'Restoration of Self' was chosen as the core category because it had the necessary analytical power to explain why participants attended for their rehabilitation. Further, this 'Restoration of Self' process was

central in explaining the relationships between all the other developed categories, it pulled them and held them together.

In order to understand the 'Restoration of Self' process experienced by the 25 participants in my study, it is first necessary to explore some of the different Self theories and to discuss their differences and similarities.

5.10 The Concept of Self

Crossley (2000) states that:

"The traditional approaches to the study of Self are based on the assumption that the Self exists as an entity that can be discovered and described in much the same way as can any object in the natural or physical world." (Crossley, 2000: 9).

However, the Self is more complex and even the idea of its existence is controversial. There are a number of different theories related to the concept of Self and defining the 'Self' as a concept is a difficult task. Although the concept has changed during the last 100 years (McAdams 1993) all theories of Self share key common characteristics.

Because the concept of Self is so multifaceted it is hard to define. Many have tried to define Self and definitions of Self relate the philosophical background of those defining it. As Elliot (2003) states:

"...different social theories adopt alternative orientations to mapping the complexities of personal experience, such that the conceptualisation of selfhood is squarely pitched between those that deny the agency of human subjects...on the one hand, and those that celebrate the authenticity and creativity of Self on the other." (Elliot, 2003: 9).

So, for example, Freudian psychiatrists define Self differently than, say, post-structuralists, who, in turn, define Self differently from feminists and postmodernists. Crossley (2000) maintains that there are a number of philosophical perspectives on Self, all of which offer important viewpoints on the concept of Self. The Self has been defined within the following (broad) approaches:

- Experimental Social Psychology

- Sociological / Social Constructionism
- Psychoanalytical Psychiatry
- Narrative Theory / Narrative Psychology

5.10.1 Experimental Social Psychology theories of Self

Crossley (2000) claims that for experimental social psychologists, Self requires the realisation that you are a 'knower', an 'I' and a unique processor of the information around you. Despite this seemingly subjective criterion of Self, experiential psychologists approach the study of Self from a positivist and behaviourist perspective. The Self is an entity which allows people to 'know' that they are different from others and it can be examined and experimented on just as psychologists experiment and explore other phenomena within the field of psychology, such as memory, consciousness and/or information processing. Bem's (1972) studies into Self and the development of his Self-perception theory and Strack and Forster's (1998) research to support the Self-perception theory have attempted to produce a hard, narrowly defined and scientifically viable definition of what 'Self' is. According to Crossley (2000) the scientific and behaviouristic underpinnings of Self in experimental psychology is opposed to the idea of studying Self using any form of introspection. For experimental psychologists, any attempt to study, define or explore 'Self' using any unscientific method would yield nothing useful. The notion of Self in experimental psychology limits our understanding of Self to that which can only be explored quantifiably and measurably; subjectivity is shunned (Giddens 2006, Kotarba and Johnson 2002). Crossley (2000) states:

"The portrait of Self put forward by contemporary experimental social psychological approaches is a logical correlate of its behaviouristic legacy; empty, lifeless selves, devoid of any sense of privacy, feeling or humanity." (Crossley, 2000: 7).

The Self as explored and defined by experimental psychologists is not interested in terms such as 'the multiple-Self', 'social-constructions of Self' or the 'narrative Self.' Limiting the study of Self to a scientific perspective means missing the complex nature of what Self is. Studying the Self using the scientific approach does not allow for an exploration of the uniquely subjective nature of

Self or of how Self is affected both culturally and socially (Elliott 2003) and it reduces 'Self' to a bio-chemical entity.

There is not one universally agreed upon scientific definition of Self and, usually, when psychologists talk about Self, it is viewed in relation to other psychological concepts such as theory of mind, identity, memory processing and cognition. In a recent review of psychological literature pertaining to the Self, Gillihan and Farah (2005) acknowledge that a scientific definition of Self still eludes the field of experimental psychology. Instead, in their review of Self literature, the Self is examined as having both physical and psychological attributes. As such, they discuss the physical Self; the ability to recognise ourselves from others and be aware of our bodies, and the psychological / agency Self, the sense of agency that links the physical Self with the psychological Self; recognising that we can cause a physical action. They also explore Self in relation to personality theory, memory and cognition. The Self in their view is limited to a biological and neural phenomenon. The subjective, phenomenological Self is nowhere discussed. Neither is the concept of the Self as a uniquely human, constructed and subjectively experienced phenomenon. As Crossley (2000) asserts:

"...we have a nagging doubt that something very essential is missing in the characteristically shallow portrayal of Self...put forward in the experimental social psychological paradigm."
(Crossley, 2000 6).

When I talk about the 'Restoration of Self' in relation to my sample of CR women I am not using a definition of Self informed by the experimental psychological literature. In the first instance, I did not use a research approach that was traditionally scientific. Further, I did not measure anything empirically; I did not measure anything biological or neural. I, therefore, cannot claim to have witnessed a restoration of Self in the traditional experimental psychological sense. What I mean by Self has very little to do with the Self of experimental psychology.

5.10.2 Psychoanalytic theories of Self

Another perspective on the nature of Self is the psychoanalytic perspective. For psychoanalysts, especially Freudian psychoanalysts, Self is a deeply hidden

phenomenon; people may have a true Self, but this Self is buried beneath their everyday personality. Central to psychoanalytical theory is the unconscious, which influences all aspects of human experience, including the Self.

From the psychoanalytic perspective, many of our actions and behaviours are unconsciously motivated by this hidden Self. The psychoanalytic perspective views Self as a split phenomenon, with an individual's conscious ego on the one hand and the desires of the unconscious on the other. For psychoanalysts the idea of conscious choices is an illusion. Self, for psychoanalysts, can never be fully known or understood and some psychoanalysts, Lacan and Fink (2007) for example, even claim that the Self does not exist, that the Self is a fiction, a delusion created during childhood from a misrecognising of one's body image in a mirror; Self is a fantasy and an identification with an external image.

For many (including myself) accepting the Self as propagated by the psychoanalytical paradigm is problematic for a number of reasons. There are numerous criticisms of both psychoanalysis, generally, and of the psychoanalytical theory of Self (Masson 1984, Elliott 2003). Firstly, it is very difficult to accept (or prove) that part of the human mind is split off from the rest and hides away, unconsciously, whilst at the same time exerting its influence on behaviour. Many have questioned the existence of the unconscious mind and this has cast doubt over the foundation of psychoanalytical theory (Masson 1984, Grünbaum 1983). Secondly, psychoanalysts have traditionally been preoccupied with sexuality and sexual dysfunction. Whilst it is reasonable to claim that sexuality is an important part of the Self, psychoanalysts' preoccupation with it reduces the human Self to little more than a phenomenon preoccupied with alleviating sexual hysteria, sexual repression and tension (Robson 2002). Finally, many feminists reject the basic ideas of psychoanalysis and view Freud and Freudian philosophers as mere apologists for misogynistic patriarchy (De Beauvoir 1974, Greer 2006). Indeed, Freud's preoccupation with 'penis-envy' and with viewing female sexuality as one of jealousy and hysteria pits it against the aims and focus of feminism.

Despite the criticisms of psychoanalysis by certain feminists, however, there are those, referred to as psychoanalytical feminists, who believe that the engendered Self, and gender differences too, are formed during early

childhood, for example Chodorow (1999). Although she rejects Freud's Oedipus complex as placing too great an emphasis on the father in the development of gender identity and Self (in essence she rejects the patriarchal assumptions and andocentric view of classical Freudian theory) she does, however, assert that the creation of the Self and gender depends upon the internalisation of the imagery of the mother. As such, Chodorow's (1999) Self shares certain key psychoanalytical traits.

Certainly, the Self that I am claiming was restored in my sample of female CR patients has very little to do with the psychoanalytical Self. Indeed, I would go as far as to say that the Self, as put forward by the psychoanalytical perspective, is ontologically at odds with the aims and objectives of my feminist informed research; it is androcentric and represents traditional masculine stereotypes and ideals and while there are a number of key psychoanalytical feminists, many feminist reject psychoanalytical explanations of Self (Meyers 1997).

5.10.3 Social Constructivist theories of Self

The social constructivist notion of Self asserts that Self comes about because of interplay between society, people and language. The social constructivist Self is dependent on the language that is used within society; the Self is socially constructed (Kotarba and Fontana 1984). The main protagonists of this approach are George Herbert Mead (1863-1931), Herbert Blumer (1900-1987) and Erving Goffman (1922-1982).

For Mead (1992) Self is developed in relation to others in society; each person creates their sense of Self in relation to, and in social exchanges with, other people; other selves. For Mead (1992) there is no clear difference between one person's sense of Self with the selves of others:

"Since our own selves exists and enter as such into our experience only in so far as the selves of others exists and enter as such into our experience also. (Mead, 1992: 164).

This is because, for Mead (1992), language is the corner stone of a person's sense of Self. Symbolic interactionism, which Mead is accredited as developing, holds that human beings communicate with each other through a

system of symbols. These symbols take on certain, agreed, meanings and communication develops between one person and another. By learning the symbols, communication is enhanced and sense of Self developed. As such, for Mead, 'Self' is socially constructed and experienced through our engagements and social exchanges with others (Mead 1992). Crossley (2000) states that:

"For Mead, our sense of ourselves is an activity, process, which comes about through our engagement, relationships and connections with other people. Mead...used the term 'the looking glass Self' to highlight the extent to which our definition of ourselves relies on the feedback and evaluations we receive from others. (Crossley, 2000: 12).

Mead (1992) claims that the Self is a construction of social interaction and that our sense of Self is continuously influenced by others. As such, although our sense of Self is influenced by wider society, we can still control how we respond to others and so Mead's (1992) theory avoids the criticism of 'Self' being determined and beyond conscious control.

Other authors who have studied Self in a similar sociological manner include Goffman. For Goffman (1990), also writing from the symbolic interactionist perspective, Self consists of a number of social roles that are performed in different social situations and different social contexts. Social interaction is viewed as a performance, influenced and shaped by others and social environments and constructed to provide others with role impressions that are consonant with the wishes and desires of the 'Self' actor. Thus, although Self (selfhood, identity) might be constructed through the adoption of social roles, an individual is able to consciously choose which Self to adopt and perform in any particular social situation. In this sense, Self is consciously chosen and knowingly constructed.

Questions of Self focus not upon answering questions such as: what is the nature of Self, but, rather, on answering questions such as: how is Self created, discussed, talked about and linguistically maintained? For Crossley (2000):

“...individuals understand themselves through the medium of language, through talking and writing, and it is through these processes that individuals are constantly engaged in the process of creating themselves. (Crossley, 2000: 10).

One criticism of the social constructivist theory of Self is that it places too much emphasis upon social constriction and little on the internal / psychological aspects of Self, neglecting, somewhat, the importance of the internal phenomenological and existentialist world of Self experience. Despite this, the socially constructed Self is still considered to be the knowledgeable agent and a person is active and not passive in the construction of their Self. The emphasis is on the interrelationship between Self and language.

5.10.4 Narrative Self

Narrative theories of Self hold that the Self is created and understood through the medium of the narrated story. The narrative Self is the storied Self, the Self that is created and told through the linguistic / narrative medium. Some, Holstein and Gubrium (2000) for example, claim that ‘Self’ is a big story, that it is constructed and influenced by the telling and retelling of multiple stories and that the telling of these stories is what shapes our lives. McAdams (1993) agrees that the central idea behind the narrative Self is that the Self (and identity) is a story, a story told, developed and contrived to make sense of our world and our place in it. For the narrative researcher how this story is told and how it develops is the focus of research (McAdams 1993). The construction of Self is always a temporal process through which we have dialogue with different images of the Self taken from the past and future and mediated by the influence of others. As Mair (1989) states:

“Stories are the womb of personhood. Stories make and break us. Stories sustain us in times of trouble and encourage us towards ends we would not otherwise envision. The more we shrink and harden our ways of telling, the more starved and constipated we become.” (Mair, 1989: 2).

If we are to understand people then we have to understand their Self story: the story of their lived Self and this is because their stories define who they are. People tell stories and seek to provide their varied and, sometimes, confusing

experiences with a sense of order and coherence and they do this by composing stories (McAdams 1993). As McAdams (1993) explains:

"In order to live well, with unity and purpose, we compose a heroic narrative of the Self that illustrates essential truths about ourselves." (McAdams, 1993: 11).

Rather than the Self being discovered it is linguistically created and then narrated. Some sources, Sarbin (1986), McAdams (1993) and Crossley (2000), for example, claim that before anything else, the human brain is a vehicle for storytelling and that we are born with a naturally occurring narrating mind.

The key characteristic of the narrative Self, that Self is constructed through language, and maintained through the authoring of the narrative, is related to the concept of Narrative Psychology. The basic principle of narrative psychology is that individuals understand themselves through the medium of language, through talking and writing, and it is through these processes that individuals are constantly engaged in the process of creating 'Self'. As such, the Self is linked to language and narratives as well as the influences of others. Further, constructing the Self is an active and continuous process. Crossley (2000) acknowledges this and points out that internal power and control are necessary to the process of the narrative construction of Self:

"...we frequently find ourselves having to make sense of what is going on; we have to create a stable, solid version of what and why this or that happened; and in order to do this, we have to have some sense of ourselves as a unified, coherent person." (Crossley, 2000: 41).

The construction of narratives allows people to understand their human existence and their lived experiences. Narrative psychology allows for an analysis of how people construct their sense of Self, their meanings and gain an understanding about what has happened to them. Crossley (2000) also acknowledges that people often tell stories as a form of therapy, that the act of story telling has a therapeutic benefit.

A criticism of viewing Self as a sole product of narrative construction is that narrative accounts downplay and belittle the effect of the body on Self. James (1961) holds against separating Self from the body and Seymour (1998)

maintains that 'Self' perspectives like narrative story telling and constructivism often ignore the body and its affects on the construction and development of Self. Seymour (1998) is assured that the Self is an embodied phenomenon and that one cannot understand Self without acknowledging the body.

Some scholars claim that the narrated Self is too varied and incoherent to allow for an understanding of what Self is and that theories of the narrated Self often ignore the two-way interrelationship between internal narrating forces and the influence on our sense of Self by society. Stryker (1980), for example, rejects an *a priori* narrative Self in favour of a Self shaped by larger social forces:

"The human organism as an object takes on meaning through the behaviour of those who respond to that organism. We come to know what we are through other's responses to us...the manner in which they act toward us defines our 'Self'..." (Stryker, 1980: 116).

As such, such a definition of Self is really nothing but a re-shaping of the social constructivist's notion of Self:

"The Self, as that which can be an object to itself, is essentially a social structure, and it arises in social experience." (Mead, 1992: 23).

However, narrative researchers like Sarbin (1986) McAdams (1993) Holstein and Gubrium (2000) reject this 'socially constructed' Self in favour of Self which is actively composed and narrated:

"We intend to propose...an alternative vision of a more actively formulated social Self. We will describe the Self that remains empirically grounded, but that is not so much a socially responsive entity to be filled or saturated with meaning as it is a social construction that we both assemble and live out as we take up or resist the varied demands of everyday life." (Holstein and Gubrium, 2000: 10).

Whilst this account acknowledges the importance of social influences on Self, it keeps, as a central feature, the notion that the Self is a deliberately and consciously constructed narrative. Whilst few narrative scholars actually deny the impact or importance of social influences on the development of Self, they

maintain that Self cannot be understood as a product of social influences or societal interrelationships alone: the Self is influenced by social interactions and is an actively constructed narrative (Holstein and Gubrium 2000). Later in this chapter I explore the construction of narratives and how this related to the Self and to process of Self restoration (see pages 256-264).

5.10.5 Feminist criticisms of Self

The whole concept of the Self is varied and broad and there is no one grand or unifying 'feminist theory of Self' available. As Brison (1997) suggests:

"How one defines 'Self' depends in part on what one wants the concept of Self to do. (Brison, 1997: 14).

Feminists have recognised that defining the Self cannot be a value free process and that any definition of the Self will be influenced by many factors. Similar to the concept of feminist research methodology the feminist concept of Self is varied and often controversial. Despite this, there are common themes often addressed by those feminist scholars who have concerned themselves with the concept of Self. Many have challenged the masculinisation of the Self and most, to a greater or lesser extent, acknowledge the involvement of both society and the body in creating the Self.

Feminists have argued that traditional definitions and theories of Self are inherently androcentric and misogynist in that they define the Self as rational and masculine. Meyers (1997), for example, highlights that in western culture the body is seen as feminine, whereas the mind, the Self, is seen as objective and masculine. As Meyers (1997) states:

"To identify the Self with the rational mind is, then, to masculinise the Self." (Meyers, 1997: 3).

Meyers (1997) asserts that the Self as portrayed in Western philosophy is that of the free, autonomous and rational thinking entity governing our behaviour and is much aligned to a traditional and masculine 'rational' worldview. This 'homo economicus' Self, Meyers (1997) maintains, alienates itself from others:

"This conception of the Self isolates the individual from personal relationships and larger social forces. It pays little attention to how the individual's desires are formed, nor does it acknowledge the impact of the individual's emotional life." (Meyers, 1997: 2).

Belenky et al (1986), Goldberger et al (1996) and Meyers (1997) have all challenged this traditional 'masculine' view of the Self looking, instead, for a definition that is less masculine, recognises the influence of others on the Self and addresses the specific needs and experiences of women.

In challenging the notion of this rational Self, some feminists have attempted to do away with the idea of the 'core Self' altogether, arguing that the notion of the Self as an internally anchored entity that regulates and dictates who and what we are is an illusion (Meyers 1997). Further, some feminists have questioned the unity and coherency of the Self. Butler (1990), for example, maintains that 'Self theories' often ignore what she refers to as the performative nature of the Self. In doing so, such theories create and maintain the illusion of a fixed and immutable 'Self'. Butler (1990) takes this further, claiming that the whole idea of the 'woman' is also illusory in that there is no such thing as a grand 'womaness' or grand unifying woman essence. Rather, gender, and the Self, are socially constructed. Similarly, other post-structuralists such as Kristeva (1991) and Lacan and Fink (1997), for example, also object to a single meaning of Self and challenge the notion of a single autonomous core Self. However, in denying the Self, post-structuralists also deny the authenticity of the narrative, and their authors, and, some claim, also undermine the essential focus of feminist research (Francis 1999).¹⁶

The post-structuralist view on Self is not accepted by all feminists. Benhabib (1999) argues that, on the contrary, there is such a phenomenon as a fixed and autonomous Self and that the construction of 'narratives of Self' can support the idea of a core and autonomous Self. As Meyers (1997) states:

¹⁶ Indeed, the use of a post – structuralist approach in feminist research is controversial, as Francis (1999) has claimed:
"Post-structuralism cannot be used effectively in emancipatory research because of its deconstruction of the truth narratives that constitute such research." (Pg. 1)

“...Benhabib refuses to join poststructuralists in declaring the death of the autonomous, self-reflective individual who is capable of taking responsibility and acting on principle.” (Meyers, 1997: 9).

More recently feminists have reclaimed the Self back from post-structuralists suggesting that there is a core autonomous Self. However, they acknowledge that this core autonomous Self is different from that of the rationalist ‘homo economicus’ much criticised by Meyers (1997). Whilst acknowledging the autonomous nature of individuals, feminists such as Belenky et al (1986), Brison (1997) and Benhabib (1999) recognise that the Self cannot be divorced from either societal relations or the body. Brison (1997), for example, claims that the intense awareness of the embodiment of the Self, experienced by certain trauma victims, is testament to the embodied nature of Self. Further, the narrative construction of Self is affected by the relationships people have and the society in which they live. This is because the narratives people construct are influenced by the audience for whom they are constructed (Rapport and Wainwright 2006).

Criticising the rationalism of ‘homo economicus’ or the post-structuralist notion of (non)-Self does not mean that one has to do away with the idea of a core autonomous Self which is responsible for our thoughts and actions. Whilst some feminists have attempted to do this and do away with Selfhood, others claim that the Self is autonomous and yet, at the same time, that it is affected by others and influenced by social relationships. Indeed, Brison (1997) argues that the embodied Self, the narrative Self and the autonomous Self are all complementary parts of the same feminine Self phenomenon. Such a feminist view of Self is useful in research where the focus is upon rehabilitation. It allows women to experience and reflect upon insults to their selves, yet it allows them autonomously to overcome them. As Brison (1997) maintains:

“...Self is both autonomous and socially dependent, vulnerable enough to be undone by violence and yet resilient enough to be reconstructed with the help of empathetic others.” (Brison, 1997: 12).

Those feminist researchers, King and Jensen (1994) and Fleury et al (2001), for example, who have in the past explored the Self and its role in healing often

define Self as a multifaceted phenomenon and incorporate within it the embodied, narrative and autonomous elements. A woman with such a feminine Self can, whilst being influenced by others, autonomously narrate and subjectively reflect upon her own life experiences and can work with others to maintain and, if necessary, restore the Self.

5.10.6 Summary of the Self

Acknowledging that traditional cognitive theories of Self assume that Self is a wholly mind-based phenomenon and that constructivist theories highlight the role of society and social interaction, Seymour (1998) maintains that while these constructivist, narrative and cognitive perspectives on the Self have all something useful to contribute to the concept of 'Self':

"What is missing from each position is a commitment to embodiment, to a consciousness that is always and already embedded in the body...Human beings do not simply have a body, they are bodies over their own life cycle. (Seymour, 1998: 10).

The body functions in the formation and maintenance of Self and there is a complex relationship between the body, social processes and internal interpretative practices that all work together to produce the 'Self.' One cannot understand, nor define, Self without reference to the Self-interpretation of individuals or their surrounding social world; Self is a personal experience. Further, the Self cannot exist separately from a person, like some form of external and empirical object (Butler 1990, Seymour 1998) and many have claimed that Self cannot be studied as something separate from the body.

Elliott (2003:5) maintains that despite the multifaceted nature of Self, the Self is:

"Personally created, interpretively elaborated and interpersonally constructed."

Although some poststructuralists have attempted to abandon a unifying definition of Self, other feminists attest the view that, although its exact nature is beyond adequate definition, the Self is perceived and experienced as being 'real.' The Self that I am claiming was 'fractured' post-MI, and was then subsequently restored through CR attendance, is much more informed by the

embodied, narrated and autonomous Self of recent feminists such as Brison (1997) and Meyers (1997) than by either the psychoanalytic or experimental social psychology traditions. Indeed, given the constructivist nature of Straussian grounded theory, only a theory of Self informed by narrative and constructivist thought would be appropriate. For the 25 women in my study, attending post-MI CR was facilitated by a process of Self restoration. The role of Self in healing, after a cardiac event, has been explored by others and it is necessary to review this literature and compare it with my own study.

5.11 The Role of the Self in Cardiac Illness

Issues relating to how the Self can change as a consequence of cardiac illness, and to how the Self can be both preserved and healed after a cardiac illness, have previously been explored by others, specifically King and Jensen (1994), Fleury (1995) and Fleury et al (2001). The role of the Self in cardiac illness now needs to be considered.

Using a grounded theory approach, King and Jensen (1994) interviewed ten women, post cardiac surgery, in order to explore the recovery process women go through when needing cardiac surgery. They claim that, having to undergo cardiac surgery affected the women's sense of Self. Specifically, undergoing cardiac surgery meant the women studied struggled with role-related behaviours and changes in interpersonal relationships. King and Jensen (1994) state that for the women in their study:

"Cardiac surgery affected the very fibre of the women...: their sense of Self." (King and Jensen, 1994: 100).

The same authors suggest that, after their surgery, these women engaged in activities that were directed toward 'preserving their sense of Self' while getting through their cardiac surgical experience. This is what preoccupied them before their surgery and during their recovery period; trying to preserve their sense of Self, identity and dignity.

This Self preserving process had five phases: waiting for their surgery, getting there (to the hospital), surviving the surgery, being there (adjusting after surgery), and moving on. Throughout this process the women employed a number of strategies in order to facilitate the preservation of their Self. These

strategies included relating to others and trying to make sense of, managing, and normalising what was happening to them. By employing these strategies, the women were able to retain their sense of Self, move beyond their cardiac surgery experience and, ultimately, to move on with their lives.

Although they provide very little specific information on how they analysed their data and conceptually developed their five categories, King and Jensen's (1994) study demonstrates how grounded theory can be employed to develop an explanatory process theory that is related to the process of recovery and the Self. For the women in their study, their cardiac situation impacted upon their everyday lives. What was important for these women was to be able to confront their situation and to cope and deal with it effectively. They did this by attempting to preserve their sense of Self, with those women who managed to maintain a core sense of Self being able to successfully move on from their cardiac experience.

Although King and Jensen's (1994) study was undertaken using women who had undergone cardiac surgery, their findings have similarities with mine. The women in their study and those in mine all struggled with the physical, psychological and emotional effects of having a cardiac condition. Both the women I studied and those in King and Jensen's (1994) study experienced a change in their sense of Self as a result of this cardiac event.

For King and Jensen's (1994) women, Self was related to relationships with others and to their perceived ability to perform domestic roles, both of which were affected by cardiac illness. Likewise, the 25 women who took part in my study suffered physical and psychological changes as a result of having an MI and this impacted upon their sense of Self too. As a consequence of this altered Self, King and Jensen's (1994) women employed preserving the Self as a form of coping strategy; keeping and maintaining their sense of Self to help them through the phases of their cardiac surgery. Similarly, both groups of women stated that they wanted to gain a better understanding about what had happened to them, claiming that loss of control and lack of knowledge contributed to their experience of having their Self altered.

It could be argued that the women in my study adopted this 'preserving' approach too; that their attendance to post-MI CR was facilitated by a need to

preserve their sense of Self following an MI. However, I do not believe this to be the case. The women who took part in King and Jensen's (1994) study had undergone elective cardiac surgery and, as such, stated that they were able to plan for going into hospital and had been forewarned about their surgery. Although, when recovering from their anaesthetic, the women stated that they felt a 'loss of control', their sense of control was regained once they had been informed that their surgery had been a success. As such, the women that King and Jensen (1994) interviewed, I would argue, were better prepared to deal with assaults on their Self than the women in my study.

For the 25 participants who took part in my study, their MI was a sudden, unplanned and, in certain cases, a catastrophic event. The women in my study suffered a more sudden and greater impact upon their sense of Self than the women in the study conducted by King and Jensen (1994). As such, for the women in my study, there was little time for them to preserve Self and so after their MI the 'Self' needed to be restored, rather than merely preserved or maintained. Whereas King and Jensen's (1994) sample engaged in a process of *preserving* the Self, I am claiming that the women I studied underwent a *restoration* of Self. Perhaps this is because experiencing cardiac surgery, although affecting Self, has less overall impact upon Self than experiencing an MI. As such, rather than having to restore Self, King and Jensen's (1994) sample merely had to preserve it, to prevent it from changing too much.

Despite this difference, however, the processes of preserving Self and of restoring Self are similar. King and Jensen's (1994) claim that as part of the 'preserving of Self process' the women attempted to make sense of what had happened to them and this was also seen in my study. Attending for post-MI rehabilitation provided the women with access to information and this was used to gain insight which contributed to their 'Restoration of Self'. Further, by accessing information, as part of their rehabilitation programme, my participants were able to regain control over their lives and this, too, contributed to the Self restorative process, which, in turn, positively affected continued post-MI CR attendance.

King and Jensen (1994) conclude their study by claiming that women's sense of Self is embedded in what they do and in the relationships they have with

others. They assert that the Self is an important factor in the recovery process following a cardiac illness. Further, forming close bonds with women and assisting them to achieve the resumption of certain domestic roles can aid 'Self' preservation. Certainly, King and Jensen (1994) are assured that the concept of 'Self' is a determining factor in post cardiac illness recovery, a claim that is further supported by Fleury et al (1995).

In their qualitative research study, Fleury et al (1995) describe the experience of women's recovery after an acute cardiac event, demonstrating the role that Self plays in the recovery process. Using a grounded theory research design, the authors describe and analyse the psychological and social processes used by women when recovering from acute cardiac events. This research reflects the exploration of a woman-centred patterning of experience and demonstrates, again, the usefulness of the grounded theory research approach in exploring the role of Self in women's recovery from heart disease.

Data were collected from women in a group format with group meetings structured to focus on any topic expressed by group members as a concern. At the beginning of each group session, the participants were asked: How are things going for you? Open exchange and dialogue were encouraged as a way to access the shared experiences of the participants. In line with traditional grounded theory research, the authors used the constant comparative method in data collection and analysis to identify the elements and structure of the emergent theory. Developing categories further guided data collection efforts. The authors maintain that the basic social psychological process emerging from the data to explain women's recovery after a cardiac event was the process of Healing:

"Participants described the process of healing as an individual patterning that evolved over time and incorporated a struggle through the uncertainty that surrounded the cardiac event to a way of creating a new and positive health behaviour change. Through healing, women negotiated personal transitions and moved toward new levels of Self-organization and personal growth after a cardiac event." (Fleury et al, 1995: 6).

The authors suggest that the sample of women's process of healing consisted of three stages: surviving, originating, and patterning balance. See figure 5.2

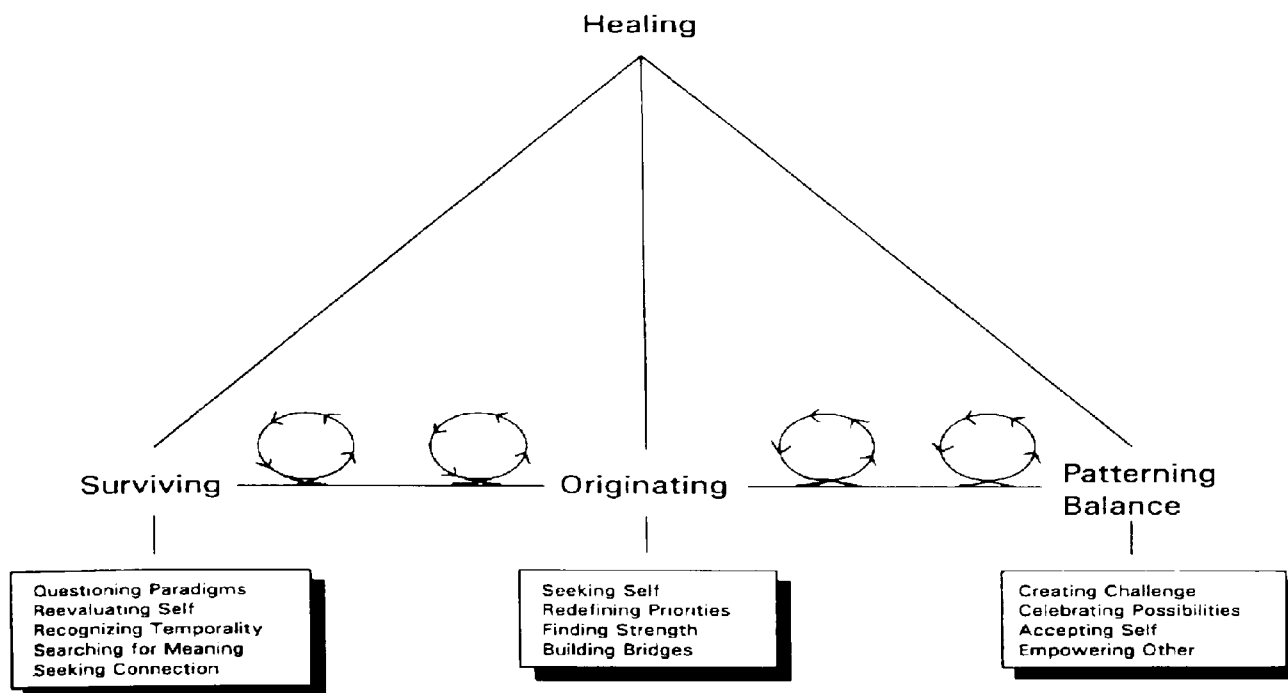


Diagram 5.2 Fleury et al's (1995) Substantive theory of healing

The authors further maintain that each of these three stages illustrates the movement of the women toward a new perspective on life and personal growth through the uncertainty of a diagnosis of heart disease:

"Although the process includes movement in stages, individual healing is not conceptualized as a linear progression. Rather healing reflects a process of individual questioning, patterning, feedback, and repatterning that leads to the creation of personal strength and balance over time." (Fleury et al, 1995: 481).

Fleury et al (1995) depart somewhat from a traditional grounded theory method in that data collection, data analysis and the theoretical sampling of data were conducted within a group format. Further, the authors themselves acknowledge that:

"Theoretical sampling of data occurred via directed questioning, rather than through the purposeful selection of informants. Similarly, participant self-selection to the group may have influenced the emerging categories." (Fleury et al, 1995: 480).

Despite these methodological criticisms the study allowed for an exploration of decision making processes in women with cardiac conditions. The authors developed a substantive theory of healing based on and grounded in data. The

restructuring that women experience post cardiac event is significant and, as the authors point out:

“An awareness of women's experiences in recovery after a cardiac event is essential to the development of rehabilitative interventions.” (Fleury et al, 1995: 8).

The healing process proposed by Fleury et al (1995) is similar to the process of Self restoration that the 25 women in my study experienced. The ‘Restoration of Self’ involved a process of seeking meaning and gaining knowledge and, like Fleury et al's (1995) theory, incorporates elements of empowerment. Deeper analysis of Fleury et al's (1995) theory reveals the important part that Self plays in this healing process. This study reveals that each stage of the healing process relates to the Self in some fundamental way. ‘Surviving,’ for example, involved a process of re-evaluating the Self. ‘Originating’ involved seeking the Self and ‘Patterning-Balance’ involved a process of accepting the Self (see diagram 5.2 above). The Self, then, formed an integral part of Fleury et al's (1995) theory of healing with healing being as much about the Self as about physical recovery.

The role of Self in healing was further explored in a later study by Fleury et al (2001) who acknowledge that:

“The Self system is increasingly being recognised as an important antecedent or correlate for understanding health behaviours. Recovery from any major life event involves both physiologic and psychosocial stress, which requires acknowledgement analysis and attention to the Self. (Fleury et al, 2001: 72).

Fleury et al (2001) also concur that the physiological and psychological consequences of a cardiac event, such as an MI, significantly impact upon the Self and that the Self is vitally important during the process of recovering from a cardiac event:

“Indeed the Self guides the process of meaning making, which contributes to the understanding of the experience of illness and functions to stabilise the Self.” (Fleury et al, 2001: 72).

In their qualitative study, Fleury et al (2001) set out to explore the role of the Self in the experiences of women living with cardiovascular disease and interviewed 13 women with a diagnosis of CHD. Although they employed the process of constant comparative analysis during data analysis the women were interviewed in groups and this may have, as the authors themselves recognise, affected the responses given by the women. Further, like King and Jensen (1994), Fleury et al (2001) provide very little detail on how they actually coded and conceptualised text when developing their categories. Despite these criticisms, Fleury et al (2001) provided a rich description of how the Self can be changed and, in this case, restructured as a consequence of a cardiac illness.

Similar to the women in the studies by King and Jensen's (1994) and Fleury et al (1995), Fleury et al's (2001) group found that living with CHD was characterised by changing images of the Self. The authors defined Self as the cognitive, emotional, motivational and social-behavioural aspects of a person, maintaining that an assault on a woman's physiology will impact upon and affect all these elements of the Self. For the 13 women in their study, living with CHD did result in changes to the Self, with the authors also maintaining that such changes can either be reversed or permanent.

Notably, most difficulties with restructuring the Self in CHD revolve around the loss of certain physical functions, changes in social roles and personal pursuits. Fleury et al (2001) develop three categories to help explain the women's struggle to restore their integrity of Self during recovery from diagnosed CHD. Women reported engaging in processes involving 'Seeking Meaning' (about what had happened to them), 'Creating Mastery' (seeking new strengths), and 'Accepting the Self' (accepting the changed Self). These processes were marked by the overarching theme of connectedness with significant others who could provide needed emotional and psychological support following a diagnosis of CHD. Through these processes, the women learnt to live with a Self that had been affected by CHD.

This study's findings also shares similarities with mine. My group of women also engaged in a process of seeking to understand and give meaning to what had happened to them. This understanding and increased knowledge were essential parts of the process of Self restoration. Further, like the women in

Fleury et al's (2001), the women in my study formed relationships with significant others (family members, other patients and rehabilitation staff) and this support was also important in the Self restorative process. However, a significant difference between my study and that of Fleury et al's (2001) is that in my study the 25 women had all suffered an acute MI and were all enrolled upon a post-MI CR programme, whereas only four women in Fleury et al's (2001) study had had an MI, the remainder suffering from some other form of CHD. This is significant because the changes to the Self experienced post-MI can be restored, whereas Fleury et al (2001) suggest that the broader experience of having CHD means women having to accept a new, or at least, a changed Self.

For Fleury et al (2001:75) the ways in which women with CHD deal with a changing Self is central to how these women: *"...struggle to restore the integrity of the Self during recovery following diagnosed CHD."*

The studies by King and Jensen's (1994), Fleury et al (1995) and Fleury et al (2001) demonstrate the role that the Self plays in the recovery of women with a diagnosed cardiac condition. Ultimately, the process of adjustment after a cardiac illness involves searching for meaning in the experience, involves gaining mastery over the event and one's life and involves restoring the integrity of the Self.

The women in my study experienced a similar process, one that I have called 'Restoration of Self'. By attending for post-MI CR they experienced a number of consequences, one of which was a 'Restoration of Self', but rather than being merely a consequence of attending for post-MI CR, the process of Self restoration facilitated continued CR attendance too. This occurred because the Self restorative process involved adopting and engaging in a series of strategies and this required the continual appraisal and support of others. In effect, there was a reciprocal relationship between restoration and attendance with both facilitating the other. Maintaining the Self restorative process meant it was necessary to continue to attend for post-MI CR.

5.12 A 'Restoration of Self' Theory to Explain Women's Continued Attendance to Post-MI CR: the Storyline Narrative

Reinharz (1992) claims, by way of criticism, that because of the androcentric nature of research women are often viewed as one large homogenous group. In reality, women's experiences are broad and diverse. Although it may be the case that women are alike in many ways, their cultural, economic and religious differences mean that women are a diverse group. I cannot claim, therefore, that the 25 women in my study formed one large homogenous group. Further, I am not suggesting that they all experienced a full 'Restoration of Self' or that this process was the same for all of them. What I am claiming is that, although their experiences were different, all 25 women who took part in my study demonstrated, in varying degrees, what I have called a 'Restoration of Self' and that this is a credible explanation to account for why all 25 of these women continued to attend and successfully complete their post-MI CR programme. By restoration I am talking about regaining mastery over one's life, to control one's life, to have the competence and knowledge to re-engage with life activities and to experience increases in knowledge and self confidence. These increases in knowledge, in confidence and perceived physical ability, together with the resumption of activities, I purport, demonstrate a form of Self restoration.

5.12.1 Storyline Narrative

For the women who took part in my study, the impact of an MI on their sense of Self was significant, affecting the way these women lived. Women's sense of Self is imbedded in what they do and in the relationships they form and, as Varvaro (1991) suggests, not being able to pursue normal role functions has a profound affect upon a women's sense of Self and can lead to feelings of emotional turmoil and uselessness. Being prevented from engaging in normal daily life activities (post-MI) had a profound effect on the women who took part in my study, ultimately affecting their sense of Self. For my sample of 25 women, domestic functions were of high value and were central to their sense of Self.

Being able to engage in domestic duties such as cleaning, ironing and cooking was a critical component of their sense of Self and it appears that, as a result of attending for post-MI CR, they were able to re-engage with these activities which pleased them greatly. For these women, their perceived domestic and

caring roles were not only highly valued, but a central component part of their sense of Self. Being able to re-engage with these activities, once enrolled upon their post-MI CR programme, was central feature of their restored Self. Further, it was the women who stated that, for them, being able to re-engage with what traditionally has been seen as 'women's work' was an important aspect of their CR. The 'Restoration of Self' was not limited to re-engaging with domestic function. The women were able to re-engage with hobbies, form friendships and conquer the feelings of fear and emotional upsets they had experienced as a result of having an MI.

Maintaining this Self restorative process meant it was necessary to continue to attend for post-MI CR. Attending for CR changed the participants' perception of MI and informed them that heart disease is a condition that affects women as well as men. Further, CR provided information about heart disease, how this condition can be managed and its impact upon the Self. The 'Restoration of Self' was not just a consequence of attending post-MI CR and but a causative phenomenon too. This is what influenced the women to go back to rehabilitation week after week, because by doing so they gained insight into their condition, into their fractured and altered Self and obtained knowledge and gained increases in their confidence, facilitating Self restoration and influencing subsequent CR attendance.

5.13 Feminist Theory

Although there is no one research method that is uniquely or distinctively feminist, the central aims and characteristics of all feminist research is that it should address issues related to exploring women's experiences, empowerment and that it should help 'give voice' to women (Reinharz 1992, Ramazanoglu and Holland (2005). I argue here that the women who took part in my study experienced a form of empowerment as a consequence of attending for CR and that this empowerment was important to their restorative process. Further, by taking part in my research study the women 'gave-voice' to their narratives, and this, too, served as a form of empowerment.

In certain circumstances, Frank (1991) maintains that an illness can be seen as an opportunity, though a dangerous one, to review ones life and circumstances. Illness can take way parts of a person's life, but in doing so it gives them the

opportunity to choose a life they want to lead, as opposed to living out the one they had simply accumulated over the years. Further, Seymour (1998) asserts that body disruption represents for people an opportunity, often the first opportunity, to confront the gendered nature of their embodiment and in some respects, to change it. Attending post-MI CR gave participants the opportunity to confront their lives and to actively change those aspects of it that had been affected by their MI. The whole process of attending for post-MI CR and the Restoring of Self involves elements of empowerment. If we take the component parts of the 'Restoration of Self' model it can be seen that the increases in knowledge and confidence, the sharing of information and the formation of friendships positively affected the women and empowered them to make informed choices about their health. Although I denied the Empowerment category the label of 'core-category' attending for CR meant that the 25 women in my study experienced a form of empowerment. This fulfils part of the criteria of feminist research in that it should address the issue of women and empowerment.

To further this and to do what Ramazanoglu and Holland (2005) refer to as 'empowering the researched' I took some of my work back to five of the women I had interviewed. Seeking their opinions on my work helped me to strengthen my theory (I was able to negotiate and discuss some of my coding, conceptualising and analysis with them) but it also gave me the opportunity to give something back and share what I was doing with participants.

I have already explored the significant role of restoration and friendship building at post-MI CR and this is further evidence to support the notion that CR offered a number of empowering opportunities for women. In agreeing to take part in my study the women gave voice to their empowering and restorative processes and in the process of doing each participant authored a narrative of their experiences.

5.13.1 Giving Voice to Women: The Restoration of Self Narrative

Being able to author a narrative of one's experiences was an important part of maintaining and restoring Self and, in itself, was an empowering and restorative experience. Further, exploring the narratives of post-MI women was a

structured way in which to listen to their experiences and consider how stories about specific experiences are structured.

Whilst I was engaged in analysing data and formulating a 'Restoration of Self' model, I became aware that the data I had obtained did not comprise only a series of interview transcripts, but a series of individual narratives. Indeed, in line with feminist research, being involved in my research project gave participants the opportunity to tell their MI / CR stories and produce a narrative account of their experiences; to give voice to their experiences. In essence, what I had obtained was much more than answers to my questions; what emerged from my interviews was also a series of woman constructed narratives. Along with comparing interview transcripts and developing a 'grounded theory' of Restoration I read and re-read the texts, not just for recurrent themes, but as coherent narratives too. Scholars such as Robson (2002) and Polkinghorne (1988) make the distinction between the analysis of narratives, for recurrent themes and categories, as in grounded theory, and narrative analysis, whereby a researcher examines a narrative as a story and an account of someone's life. However, there are no methodological reasons why transcript data, obtained as part of a grounded theory study, cannot be read as narratives to be used in the development of theory (Mason 2002). Swatton and O'Callaghan (1999) successfully conducted a study to explore life narratives and the construction of 'healing stories' using narrative stories to help build a grounded theory.

I became interested in how the women in my study had constructed their stories and I was interested in exploring how they had constructed their narratives in order to make what had happened to them intelligible and to help them live with their experiences contributing to their sense of Self restoration. Reading the transcripts as a narratologist, during the grounded theory process, I gained a deeper perspective on what I had collected and came to the conclusion that in answering my questions and in recounting their experiences, the participants' stories took on the form of a 'Restoration Narrative'. I am suggesting that the construction of a 'Restoration Narrative' is further support for the 'Restoration of Self' process experienced by my participants at their post-MI CR.

The construction of the restoration narrative is similar to Frank's (1995) restitution narrative. For Frank (1995) sick and ill people are more than victims of disease or patients. They are, in reality, wounded storytellers. Ill people tell stories to make sense of their suffering and when recounting their illness experiences and constructing illness narratives they find healing. Frank (1995) postulates three illness narratives, the restitution narrative, the chaos narrative, and the quest narrative. Restitution narratives anticipate recovery and getting well again and follow a pattern similar to this: 'I was once healthy, then I got sick, but now I am getting better.' Whilst reading the transcripts of the post-MI women I realised that their stories, their narratives, were similar, in style and structure, to Frank's (1995) restitution narrative following a similar pattern, with the restorative process being similar to that of restitution: 'before my heart attack I was well, then I had a heart attack but now I am getting better.'

Restorative narratives help explain why the women attended post-MI CR and reflect their understanding of their restorative experiences. Reflective accounts can highlight disruptions in selfhood and authors of such accounts also maintain that narration is an important way to make sense of an illness episode and to restore Self. Through reading these narratives it can be seen how the women used the power of the CR narrative to help restore their sense of Self and regain their place within their own social networks.

Since their MI and CR experiences members of my sample had to come to terms with their experiences. They have had to cope with what they experienced and went through.

Sangster (1998) asserts:

"When people talk about their lives, people lie, forget a little, exaggerate, become confused and get things wrong. Yet they are revealing truths. The guiding principle of narratives is that all autobiographical memory is true: it is up to the interpreter to discover in which sense, where and for what purpose." (Sangster, 1998: 87).

I must emphasise that exploring the narratives did not involve re-analysing text. Rather, I was re-reading text as narrated stories to provide further support for

the Self restorative process. Reading the 25 transcripts as narratives I asked myself a number of questions:

- What motivated participants to tell their stories/narratives?
- How did the post-MI CR females construct their narratives?
- Is there a pattern to how post-MI women construct and tell their narratives?
- How did constructing a narrative aid in the coming to terms with the experiences of having an MI and process of Self restoration?

In terms of the first question, participants were motivated to tell their stories for a number of reasons, one motivation being that I had requested an interview. However, as Reiter (2000) maintains, language and stories play a crucial role in the construction of meaning and, perhaps, one motivational force influencing the participants to tell their stories was their attempt to gain some sort of meaning out of what they went through. They come to terms with what happened to them via the medium of language and being given the opportunity to narrate their story facilitated the restorative process.

Some women said that they had made it their goal, since their MI, to understand what had happened to them and to inform their significant others about the events that they experienced. For these participants, their narratives became a way of helping them understand what had happened. Psychologists are aware of the potential of narratives as a means of creating reality and meaning (Gergen 1999) and the telling and re-telling of stories can create and reinforce meanings ascribed to events.

It is this 'To Give Meaning To' that interested me in my reading of the narratives. Certainly, some of the events described to me were 'factually' incorrect. For example, one participant occasionally indicated that she still did not fully understand the processes of having a heart attack, even though she claimed to have gained an improved understanding of her condition as a result of attending for post-MI CR. However, this does not mean such a narrative lacks validity or credence. Whether a CR attendee has incorrectly understood key information is, really, of little importance. Narratives are of value for they

provide examples of how the participants interpret their experiences. They provide examples of the meaning ascribed to certain events. It is the meaning that is more important than the actual event.

I could see that, perhaps, a great motivator for the telling of their narrative was to help make sense out of what had happened. No doubt, the way people narrate their lives will be dependent upon a number of factors, but the motivation will be to gain an understanding of what happened, to provide meaning.

To address my next two questions (how did participants construct their narratives? / is there a pattern to how participants constructed their narrative?) a review of narrative construction was necessary.

According to Crossely (2000) narratives have a number of characteristics. In a narrative, there exists, a type of prefabrication that is absent during 'normal' everyday discourse. As such, a narrative can be seen as a 'set-piece' construction, which is delivered whenever required. Further, according to (Toolan 1988) narratives have a trajectory; they start somewhere, progress and have an end. All 25 of my participants' narratives seemed to employ this pattern. It is not unreasonable to suggest that each one of them had told parts of their story before. Despite the fact that I had requested an interview and I had asked my own questions during the interviews, how much of the information I obtained was original or new is questionable. This is not to invalidate the data I obtained; merely I question how much I actually interviewed the participants compared with receiving a story.

To aid my review of the construction of Restoration Narratives, I explored the work of Labov (1972). He maintains that narratives are structured in a particular way and include an abstract, orientation, complicating action, evaluation, resolution and coda. Reading my collected texts as narratives, I became aware that all 25 of the restorative narratives followed this pattern. During the interviews, participants would start with a very brief overview of their story; in order for them to tell me what it was they were going to say (the abstract). They would then set the scene by telling me about their life before their MI. This served as a form of orientation. Complication action would involve the telling of a sequence of significant events related to their MI experience and their

rehabilitation. Throughout my sample's narratives, there is evidence that all of the participants evaluated what had happened to them. Indeed, this evaluation often appeared as a form of interpretation. This interpretation, I suggest, was/is vital in allowing the participants to understand and give meaning to what they had experienced. Resolution would often be via an account as to how they had survived their MI and how their CR had helped in this process. The coda (conclusion) took the form of a 'summing-up' and often included comments about how their life had changed as a result of their MI and rehabilitation experience.

Upon reviewing the narratives, it appeared to me that, all 25 of the narratives followed this pattern. In essence, the structure of the restorative narrative mirrored the actual experience of having an MI, suffering its consequences, attending for CR and getting better / restored. The restorative narrative framed the actual experience of the Self restorative process and reviewing narratives was invaluable in developing my restorative theory.

5.14 Contribution to Knowledge

Whilst previous research has explored why women *do not* attend for post-MI CR, there is very little research exploring why they *do* attend such rehabilitation programmes and what factors might facilitate CR attendance. The Self, as a concept, is important when recovering from a cardiac illness and previous studies support this. However, no previous studies have claimed that the Self is *restored* as a consequence of attending post-MI CR, nor have any studies suggested that the process of Self restoration actually *facilitates* post-MI CR attendance. The notion of CR restoring Self and facilitating continued attendance to post-MI CR programmes lies at the heart of my thesis and is my contribution to the knowledge related to CR attendance in women.

Exploring the experiences of 25 women provided me with an understanding of Self and of how attending for post-MI CR can facilitate Self restoration. The women in my study defined themselves in relation to the social roles they performed; mother, wife, house keeper / carer, for example. Experiencing an MI affected the women's ability to perform these roles and attending CR helped them to adopt them again. Thus, my study not only highlights how these roles can shape the Self, but also how CR can help restore the Self.

As mentioned above previous research has explored the phenomenon of women and CR attendance and some of the findings from these studies were supported by my own study. However, many previous research studies also suggest that women tend to discontinue their post-MI CR and dislike certain key aspects of it such as exercise. This was not the case for the 25 women in my study, all of whom successfully attended and completed their CR, stating often, that they found it both enjoyable and beneficial. The question I need to consider here is, what can account for this seemingly contradictory finding? Why did the women in my study experience a 'Restoration of Self', but other women, in other studies, do not? However, due to the qualitative nature of my study answering this question is difficult.

5.15 Limitations

The 25 women I studied cannot be considered as representative so generalising my findings is not possible. I am not claiming that the 'Restoration of Self' process represents the experiences of all post-MI CR women. My group was novel and unique. I may even have been just 'lucky' in obtaining the sample I did and I acknowledge that if I were to collect data on another 25 post-MI women I might derive different concepts and categories which might require the development of a different theory. Therefore, I cannot claim that my findings hold true for all CR women and providing a comprehensive answer to why my results appear contradictory is not possible, especially if one considers that the Self restorative process is only my interpretation. It is possible that because I selected a unique sample, I may also have developed a unique theory which only represents the experiences of the 25 women I interviewed. Thus, as is the case with qualitative research, my results are unique to my study.

There is also the issue of the impact of my gender on my study and my participants. As a man my gender would have had an effect on the women and potentially influenced all the major aspects of the research. However, I discuss the impact of my gender and the other issue of the unique way participants and researcher construct knowledge, in my reflections chapter (see pages 274-280).

Despite the limitations of my study, my employment of Straussian grounded theory did enable me to develop a Self restorative theory, and this developed theory can be seen to be grounded in the data that I obtained. Through exploring the recurrent experiences of my sample I offer this Self restorative process as the best explanation to account for continued CR attendance in the women I interviewed.

5.16 Chapter Summary

This chapter has explored the main findings that emerged from my study. In using Strauss's (1987) paradigm model, to structure this chapter, discussions on conditions, actions/interactions and consequences related to CR attendance were explored. The core category and main finding is that of 'Restoration of Self' and the previous research literature that explored the role of the Self in

healing women, post cardiac event, was reviewed and subsequently compared with my study.

The women in my study valued their rehabilitation highly and none stated that they had been disappointed by it or that they ever felt like giving up. In exploring post-MI CR attendance the process of Self restoration can explain why the 25 women in my study attended and continued to attend for post-MI CR and this has been discussed in detail.

CHAPTER SIX: Conclusions, Recommendations & Implications for Practice

6.1 Chapter Introduction

In this short chapter I discuss the main conclusions and recommendations that can be drawn from my study. Further, I explore some of the clinical implications of my study. I also make some recommendations for CR practice. Discussions on conclusions are split into study conclusions and methodological conclusions.

6.2 Study Conclusions

Although I chose a non-representative group, I can still conclude that (at least 25) women do attend and continue to attend for CR programmes post-MI and that women find CR both beneficial and enjoyable. In answering my research question: what influences women's continued attendance to phase three post-MI CR programmes?' I identified a number of factors. Further, attending for post-MI CR resulted in a number of consequences for the participants and these included increases in confidence, knowledge, a sense of empowerment and a 'Restoration of Self.'

CR attendance is a multifactorial phenomenon. For the women in this study, CR attendance was facilitated by a process of Self restoration. The concept of Self is complex and is also affected by many different factors including narrative accounts of experiences and the adoption of social roles. Through exploring the relationships of my developed concepts and categories I conclude that the continued CR attendance that I witnessed was related to a 'Restoration of Self'. I must highlight, again, that 'Restoration of Self' was developed as the core category and incorporates *all* of the identified causal and intervening conditions, actions and consequences related to the women in my study.

In addition to 'Restoration of Self', I conclude that:

- Expectations of CR play an important role in influencing women's continued CR attendance.
- The nature of the educational material provided at CR is important in facilitating Self restoration.

- Family and professional support is an important factor in influencing CR attendance
- Women enjoy engaging in exercising regimens as part of their CR programme
- Group interaction and information sharing is a valued part of attending CR

6.3 Methodological Conclusions

In considering the debate about Glaserian vs. Straussian grounded theory I conclude that Straussian grounded theory works and that Strauss's paradigm framework allowed me to develop a theory as well as helping me to structure my thesis.

Although Strauss's paradigm model is preconceived I overcame my initial feelings (that it forced my data) and, on reflection, I now believe that it allowed me to explore category relationships. I found this invaluable during data analysis, especially when axial coding. Because the paradigm framework focuses attention on causal and intervening conditions, actions and consequences, analysis of my initial categories, developed through open coding, meant that a much deeper and fuller analysis of each was obtained. This helped me to identify category relationships and choose a core category. I initially struggled when axial coding but my perseverance with the paradigm model meant that I soon appreciated how all of my developed codes, concepts and categories could be 'fitted-together.' Indeed, I conclude here that Strauss's paradigm framework facilitates the identification of the core category, rather than forcing it to emerge. Further, Straussian grounded theory worked well when combined with a feminist framework.

6.4 Recommendations for Future Research

My study has highlighted areas for further investigation and I present these here as recommendations for future research studies. This is not a comprehensive list, but some of the issues that struck me as being important in continuing to understand post-MI CR attendance.

One of the questions to emerge from my study was that of whether the Self exists empirically or whether it is a mere social construction. Empirically

measuring the Self would be a difficult task and it is unlikely ever to be able to quantitatively measure a process of Self restoration. However, further exploring the role of the Self in recovering from illness is one of my recommendations. For example, one of the intervening conditions identified during the study was that of receiving support from family, friends and CR staff. Many of the participants stated that CR staff were very helpful and the relationship they built with staff and other participants were significant. This aspect of the restorative process indicated the role that significant others play in helping to restore Self and highlighted why the women needed to continue to attend for their CR in that they needed to have continuous access to rehabilitation staff and other MI patients. A subsequent research study could explore this further, exploring the impact of others on the maintenance and 'Restoration of Self', following different illnesses in different settings.

I also recommend exploring, both qualitatively and quantitatively, some of the other issues and questions that emerged from my study. For example, because my study focused upon women a future qualitative study could be conducted to explore factors that affect men's continued attendance to post-MI CR programmes. How do men cope with and react to having an MI? What intervening conditions affect their continued CR attendance and are these different from those of women? What consequences do men gain from attending post-MI CR? Can the 'Restoration of Self' Model explain men's CR attendance? These are just a few of the questions that could be qualitatively explored. A study could be conducted to compare the general MI and CR experiences of both men and women and such a study would provide additional information for the field of CR research.

Empowerment was developed as a consequence category during analysis and this could be further explored; a research question such as: 'To what extent does empowerment facilitate CR attendance' could be formulated into a future research study. Explorations around the issues of increases in confidence, knowledge and understanding could also be further explored.

Given the qualitative nature of my study generalising my findings is not possible. However, a number of questions arose from my study that could, in principle, be developed into 'testable' research questions to form part of

quantitative research studies. Studies could be developed, for example, to explore correlations between social support and continued CR attendance. The role of health beliefs in influencing rehabilitation attendance has been examined before, but here I am suggesting a comparative study to measure the differences between men and women's health beliefs and to explore their impact upon CR attendance. Similarly, quantitative studies could investigate factors affecting knowledge acquisition, post-MI and the different types of educational material and their effect upon increasing illness understanding.

An important finding from my study was that all 25 women attended and successfully completed their CR and they did this in spite of the previous research claiming that they would discontinue. I would have liked to have explored this in greater detail in terms of whether the conditions within the three hospital sites impacted upon CR attendance. A future study might explore this.

Finally, I would have liked to have accessed women who chose *not* to attend for post-MI CR in order to compare their experiences and responses with those of the 25 women who took part in my study. Due to time and accessibility issues this was not possible but a future study could be conducted to explore why women discontinue CR.

By way of a summary, I have listed my recommendations for future research, below:

- Exploration of the role of Self in illness recovery
- Exploration of the impact of others on Self
- Exploration of factors affecting CR attendance in men
- Comparative study exploring the CR experiences of men and women
- Further explorations on the impact of empowerment / increased knowledge / confidence on CR attendance
- The impact of social support on CR attendance
- A comparative study exploring the health beliefs of men and women

- An investigation into the conditions where CR programmes are run
- An explorative study to investigate those women who do not attend CR

6.5 Implications and Recommendations for Practice

Due to the methodological limitations of my research the implications of my study for clinical practice are also going to be limited. Indeed, NHS policy documents are very rarely written based upon the findings from qualitative research studies. Whilst I recognise this, I do feel that my study does have some clinical relevance for CR practice.

During the first few hours after the onset of chest pain many of the women in my study either did not recognise the importance of their symptoms or they chose to play them down and engage in self medication. I feel, therefore, that awareness needs to be raised to the fact that women are still, potentially, putting their health at risk. Health care professionals should implement steps to help women identify the signs and symptoms of heart disease and highlight the importance of seeking treatment early. Further, all health professionals should be aware that heart disease manifestation can sometimes be different in women.

Health professionals need to acknowledge how the experience of having an MI can affect women and their sense of Self and work with them to identify how the consequences to the Self can be addressed. If this is done on an individual basis then this might positively affect CR attendance.

My study also highlights the importance of good communication between staff and patients and the presence at CR of other women who have also experienced an MI. The women I studied stated that this social support was an important and valued factor of their CR programme, with the presence of significant others also being identified as being important for the Self restoration process. Similarly, the educational material used at CR was noted as being important. It is reasonable to suggest that CR programmes should continue to encourage and facilitate good communication and work towards producing high quality and easily accessible educational material to further assist CR.

The activities women engage in and value should not be underestimated. For the women in my study household chores and carer duties were highly valued and CR programmes should, where appropriate, work towards assisting post-MI women to re-engage with such activities. Being able to re-engage in such activities was associated with their restored Self and telling women they should not engage in household duties might be counter-productive.

Re-engaging with past activities was related to being able to successfully participant in the CR exercise classes. Being able to undertake exercise, in a safe environment surrounded by health professionals, and discovering that they could manage a range of exercises not only helped the women to restore their physical abilities but affected their confidence. Through exercise the women were able to regain the confidence necessary to pursue their previous life activities. Exercise classes should continue to be offered to women and these should be tailored to meet individual needs.

Whilst acknowledging its limitations, my study has demonstrated that attending a structured post-MI CR programme delivered by skilled health professionals can have numerous benefits for women, ultimately leading towards a restored Self. Further, this Self restorative process can facilitate continued CR attendance. CR programmes should continue to be offered to women post-MI. For the 25 women in my study, CR was highly valued and it needs to be recognised that women can benefit from it through their continued attendance.

Table 6.1, below, summarises the main recommendations and implications to emerge from my study.

RECOMMENDATIONS FOR PRACTICE
Health professionals should acknowledge the ways in which an MI can affect the lives and selves of women
Health professionals should work towards raising the level of awareness of heart disease symptom recognition in women
CR programmes should facilitate good communication and continue to develop accessible CR patient literature
CR staff should recognise the importance and significance of household duties for women and help them achieve these
CR programmes should continue to offer exercise classes to women
MAIN IMPLICATIONS FOR PRACTICE
Under certain conditions, women will attend and continue to attend post-MI CR
Attendance is facilitated by numerous factors which, collectively, can be seen to involve a 'Restoration of Self.'

Table 6.1: Main Recommendations and Implications

CHAPTER SEVEN: Reflections

7.1 Chapter Introduction

In this final chapter I provide some reflections on my study. I discuss some of the problems I encountered and how I have learnt from them. I also discuss how undertaking the study has affected me and how I might have affected both my participants and my findings.

7.2 Reflecting

Reflection is an important part of the qualitative research process, allowing researchers to gain a deeper understanding of how they study their world and their role within it (Punch 2005). Reflection has been defined by Bolton (2004) as a process:

“...of learning and developing through examining our own practice...” (Punch, 2005: 4).

Reflection enables people (practitioners) to see deeper into themselves and understand themselves more fully. Through the reflective process we learn about ourselves and about the things that we do (White et al 2006). In essence, through reflection, learning takes place. Through critically reviewing and reflecting upon my study I have come to appreciate a number of things. However, due to word limitations I will only discuss the most significant here.

7.3 Reflections on My Study

Firstly, it is worth acknowledging that the grounded theory method facilitates reflection through the process of writing memos. Walker (2006) recognises that writing is one of the best ways to reflect. My memo writing and memo reflecting processes helped me understand what was going on and helped me understand my collected data and aided me in developing my restorative theory. Read on their own, my memos act as a kind of reflective journal and I found this very useful during my study and, with hindsight, I think I would have written down more of my thoughts as I went along, maybe in the form of a reflective diary, rather than just detailed notes at the side of transcripts.

I also feel that it is necessary to state that I have thoroughly enjoyed the process of undertaking a doctoral study and I have enjoyed it for a number of reasons. I have always enjoyed studying and having the opportunity to investigate a subject, in depth, was something that I relished. I was often told, by CR staff, that they were impressed by my enthusiasm for my chosen subject. Acknowledging this, it is reasonable to suggest that I could have impacted significantly upon my study even contributing towards my sample's continued attendance. I found it difficult to restrain my enthusiasm and occasionally I would rush into things and start pursuing various task all at once, sometimes without a well thought through plan. I now appreciate that time, although limited, can be better spent if one develops a well thought through action plan.

Despite my enthusiasm for my study, there were times when I lost my way and felt negative about undertaking such a large project. For example, I had previously done a piece of grounded theory research for my masters degree and I thought I had a good understanding of the grounded theory method. However, due to the limited length of my master's dissertation only a very small sample was chosen. Theoretical saturation was not achieved and data were only superficially analysed for re-current themes. Thus, my master's degree experience, whilst initially giving me the illusion that I had some grounded theory experience, was to prove inadequate during this doctoral study.

In this study I struggled during axial coding. Before this, I *thought* I knew what axial coding was about (relating categories) but, in practice, I struggled to do it. I was unsure of how axial coding worked; does one use the paradigm model to axial code within each of the developed categories or does one take the developed categories and relate them together using the paradigm model? This was a fundamentally important issue for me and one that took me a while to understand. In part, this was due to the fact that many methodology text books discuss axial coding in a very broad and (I suspect a deliberately) superficial manner. Finally, after discussing the process with a number of expert grounded theorists, I came to appreciate that one must initially axial code *within* categories and then subsequently axial code *between* categories, relating them together.

Coming to understand how both the paradigm model and axial coding work was one of the biggest challenges I encountered during my doctoral journey. As much as I wanted to move on to theory development, I could not do so until I had fully understood axial coding. Once I had achieved this my feelings of elation were immense. I remember, clearly, the eureka moment when it became clear to me how my categories related to each other and although I still had a long way to go in terms of developing theory, understanding axial coding made subsequent analysis not only easier, but also more rewarding. Thus, when I undertake further research in the future, I will be able to take this understanding with me and this can only be of benefit.

Another frustrating factor that tested my motivational drive was that of NHS bureaucracy. Although I would not have called myself 'green' in terms of NHS bureaucracy, I found trying to gain the ethical permission to access CR patients very frustrating. I wrote many letters to NHS Trust research officers only to have them returned demanding more information and although I learnt a great deal through this process I did find it an awful strain, especially as I was so keen to start collecting data. Reflecting upon this particular experience there is very little that I could do differently save accept that it is part of the research process and try to see it as a learning experience. Indeed, I did once receive a rather long letter from a consultant cardiologist (overtly hostile to qualitative research) in which he listed a number of reasons for initially withholding permission for me to access CR patients. I was able to use some of his information in my literature review and I addressed his concerns in my subsequent letters to him. Eventually, he granted me permission and so I view his comments, now, as helpful.

I also found it extremely helpful to receive feedback on my work from journal editors and journal referees. During my study I published two papers related to my study (see Appendix Nine). Submitting to peer review journals often means receiving recommendations on how to improve work and I found the advice given to me, as a result of this process, invaluable. One reviewer gave me such detailed comments that I subsequently restructured my entire methods chapter. Previously, I might have taken such comments to heart but undertaking this doctoral study I have come to learn that most advice is given constructively and it is wise to use it rather than ignore it.

In terms of the process of the research journey, I have come to learn the importance of writing *everything* down. Many times during the early stages of my study I had ideas, read something important or met somebody interesting only to either forget important information or lose it. As I progressed through my study I made an effort to record all of my thoughts and I got used to taking that extra bit of time and writing references down, in full, immediately after citing them. In the future, I would make this an essential part of any research project, keeping both a rough note book for thoughts and an up-to-date reference list.

Another point of reflection concerns my decision to use grounded theory as opposed to ethnography. Whilst I was preparing to undertake the study I had considered using an ethnographic approach, but I rejected the idea maintaining that because of its focus on culture (Robson 2002), ethnography might not have been appropriate. However, having completed the study and having thought through the process of 'Restoration of Self' I now believe that ethnography might well have been a useful approach to employ, especially as cultural issues emerged as elements in the 'Restoration of Self' process. When planning future research studies I will give greater consideration to different research approaches.

7.4 Reflections on Feminism

Having completed my study and whilst engaged in writing up my work I became worried that I had not fully justified the use of feminist literature to guide my studies. I considered whether or not I needed to have used a feminist perspective or not. I had read a number of authors (Daly 1985, Chodorow 1999), who wrote that unless a research project focuses upon issues such as gender and/or the emancipation of women, then a feminist perspective or framework is not always necessary, just having women in a sample, in itself, does not justify the use of a feminist perspective / framework. Other feminist writers that I read, Ramazanoglu and Holland (2005), for example, maintain that issues such as gender and the empowerment or emancipation of women need not be the *focus* of a research project. Rather, if women are included in a project then this is all that is needed to justify the use of a feminist perspective. Given that the focus of my research was about women, I felt that I would better be able to justify my study using a feminist perspective than if I had attempted to undertake my study without addressing feminism or feminist issues. In part,

my decision to adopt a feminist informed approach was as much informed by my fear of criticism than any methodical necessity.

I believe that my reading of feminist literature assisted me throughout my study and I especially found the feminist literature on Self informative. Further, reflecting upon my study I cannot see how I could have done it *without* reference to feminist research or feminist literature. One of the perceived benefits recurrently stated by my group of women was that of being able to re-engage with household duties as a result of attending for CR. Without reading the literature on how women defined themselves in relation to the roles that they perform, I am sure that I would have missed the significance, for the women, of them being able to undertake activities previously engaged in prior to their MI. In relation to this issue, I would even go as far to say that I found the feminist literature supportive and *comforting*. For example, when I started to formulate my 'Restoration of Self' theory I became increasingly worried about claiming that the women had restored themselves back to housework and other household chores. Surely, I thought, what feminist is going to accept this as a *benefit* of CR; the re-enslavement of women? Further, in certain sections of my thesis I almost imply that household duties should be considered as a goal for CR. Although this issue of being able to re-engage with housework has been explored previously, Kristofferzson et al (2003) for example, I felt very uncomfortable at suggesting it in my study. I imagined my work being read by a radical feminist and how she would vehemently criticise it as the work of an arrogant male researcher. However, through continued reading of feminist text related to the roles women perform in society I believe that women do (partly, at least) perceive themselves in relation to the roles they perform. It was the women, themselves, who stated that being able to do housework again was important for them. To have missed this would have meant missing an essential part of their restorative process and I gained a deeper understanding of this because of the feminist literature I used to inform my study.

7.5 Reflections on My Role

I have also reflected upon my role throughout the study and how I personally might have affected or influenced it. Reflection is an important aspect of empowerment (Bolton 2004) and through reflection people can empower themselves. When considering my role in the entire research process I came to

believe that it was possible that I instigated in my sample a need for them to reflect on their MI experiences. In asking them questions about their MI and CR I was, in essence, causing them to reflect on their lives. Maybe I had contributed to their continued CR attendance, maybe my questioning forced them to reflect on situations that they might not have done had they not taken part in my study and maybe the act of taking part in a research study affected their attendance and perceived empowerment? This worried me greatly and this issue was something I gave a lot of thought to. Surely, I thought, if I was involved in influencing attendance and/or empowerment where would that leave my study's credibility and usefulness? However, reading through my many books on research feminism and health sociology something that I came to appreciate was that powerful people (or, more realistically, people in perceived powerful positions such as nurses, doctors, physios or researchers, for example) cannot empower others; empowerment is something that needs to be obtained personally. Upon reflection, I now believe that, although it was facilitated by CR staff and may have been affected by my own questioning, the empowerment experienced by my sample was obtained 'from-within.' Neither I nor the CR staff could have given this empowerment. Rather, attending their CR programmes gave the women the knowledge, skills and confidence for them to empower themselves. Besides, what arrogance it would have been, on my part, to have claimed that I had contributed to the empowerment of women.

A similar issue to concern me was to what extent my relationships with my sample affected their attendance and my research study? Because I became quite well known at the CR centres I sometimes developed my own friendships with women that I had previously interviewed. Those women to whom I had previously talked would often enquire about my research, asking me how I was getting on and whether I was making "good progress?" Again, I was worried that this might have adversely affected my 'results' as I felt an overly friendly sample might invalidate any findings. However, upon reflection I now believe that I could not have behaved in any other way. I appreciate that researchers must remain professional and adhere to their chosen methodology's guidelines, but I could not adopt the cold, objective and clinically distant researcher role and for me to have tried would have been too uncomfortable. I am a qualified cardiac intensive care nurse, and forming relationships with cardiac patients is something on which I pride myself. I acknowledge my influence upon the

women and them upon me. Indeed, one of the great pleasures for me, throughout this study, was meeting and listening to the women who took part in it. Reading books, learning to deal with NHS research officers, obtaining ethical approval, learning about axial coding and writing a doctoral thesis were, in comparison, chores compared with interviewing the women. Once the tapes were rolling and the talking started things went smoothly and I never perceived interviewing as a burden, I always enjoyed it.

I believe, now, that to undertake qualitative research one has to almost unlearn the empiricism that permeates the research ethos of the West. I was not after objective truth, nor the answer to everything. My study was not about trying to objectively find the right answer to my research question, it was about interpreting and exploring. Viewing it as an interpretative exploration I do not feel, now, that either myself or the relationships I built up with the women in anyway invalidated my findings or my study. The Self restorative process is my interpretation to account for the continued attendance I witnessed in 25 post-MI women and interpretations are sometimes jointly constructed. There can be no doubt that the relationships I formed did affect my study, but building such relationships, I feel, is an almost central part of qualitative research (Strauss 1987, Robson 2002).

7.6 Summary

This study represents the single biggest challenge that I have, to date, ever undertaken. Despite the numerous problems I encountered along the way, I can honestly say that I have found the experience truly enjoyable and informative. Further, I am a much more knowledgeable and competent researcher than I was before I started. I cannot see how anybody could undertake a doctoral study and not gain from the experience. For me, meeting the 25 women and the CR staff was the greatest pleasure. The whole process has confirmed for me that health care research and nursing is something that I am proud to be involved in. Finally, irrespective of any professional or educational benefits that I may have attained through undertaking this study, what I have gained personally is immeasurable.

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APPENDIX ONE: Letters of Ethical Approval

Multi-Centre Research
Ethics Committee for
Wales

Chairman/Cardeirydd:
Professor John Saunders

MREC for WALES

Pwyllgor
Ymchwil Ethegau
Aml-Ganolfan
yng Nghymru

Administrator/Gweinyddes:
Mariane Parsons

Temple of Peace and Health, Cathays Park, Cardiff CF10 3NW
Teml Heddwch ac Iechyd, Parc Cathays, Caerdydd CF10 3NW

WHTN 0 1809

Telephone enquiries to: 029 2040 2455

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MREC website: <http://www.corec.org.uk>
e-mail: mariane.parsons@bseccardiff.wales.nhs.uk

Mr Ray Higginson
Senior Lecturer in Nursing
School of Care Sciences
University of Glamorgan
Pontypridd
CF37 1DL

12th November 2004

Dear Mr Higginson

MREC reference number: 04/MRE09/42 PLEASE QUOTE THIS IN ALL CORRESPONDENCE
Cardiac rehabilitation and women: A qualitative study to explore factors which may affect
female adherence/non-adherence to phase three myocardial infarction cardiac rehabilitation

The MREC for Wales reviewed the above application at the meeting held on 11th November 2004.
Thank you for attending to discuss the study.

The members of the Committee present gave a favourable ethical opinion to the above research on
the basis described in the application form, protocol and supporting documentation.

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached
document. You are advised to study the conditions carefully.

The documents reviewed and approved at the meeting were:

- Cover letter (undated).
- Application form signed and dated 7th October 2004.
- Research protocol (6 copies).
- Patient invitation letter.
- Participant informed consent form.
- Information leaflet.
- Sponsorship letter dated 28th September 2004.
- Letter of insurance dated 6th October 2004.
- Curriculum vitae for Mr Ray Higginson

You should obtain final management approval from your host organisation before commencing this
research.

You should arrange for all relevant host organisations to be notified that the research will be taking
place, and provide a copy of the REC application, the protocol and this letter.

.../Continued on page 2

All researchers and research collaborators who will be participating in the research must obtain management approval from the relevant host organisation before commencing any research procedures. Where a substantive contract is not held with the host organisation, it may be necessary for an honorary contract to be issued before approval for the research can be given.

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

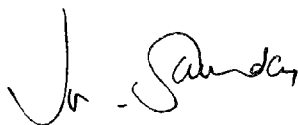
We shall notify the research sponsor that the study has a favourable ethical opinion.

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

REC reference number: 04/MRE09/42

Please quote this number on all correspondence

Yours sincerely



**Professor John Saunders
Chairman
MREC for Wales**

MREC FOR WALES : Attendance List for the MREC for Wales' meeting on 11th November 2004

Professor John Saunders	Chairman	Professional (Hospital Consultant)
Dr Gordon Taylor	Vice Chairman	Professional (Statistician)
Dr Gail Boniface		PAM member (Occupational Therapist)
Mr Paul Brown		PAM member (Radiographer)
Dr Maurice Buchalter		Professional (Hospital Consultant)
Mrs Ceri Channon		Lay member
Mrs Philippa Herbert		Lay member
Dr Meriel Jenney		Professional (Paediatrician)
Dr Dai John		Pharmacist
Mr David Rabjohns		Lay member
Dr V Bapuji Rao		Professional (Psychiatrist)
Dr Pete Wall		Lay member
Mr Stewart Williams		Lay member

Please reply to:

R&D Consortium Support Office
Swansea NHS Trust
Morriston Hospital
SWANSEA
SA6 6NL

Telephone:

01792 704056

Fax:

01792 703910

E-mail:

jemma.hughes@swansea-tr.wales.nhs.uk

Mr Ray J Higginson,
Senior Lecturer in Nursing
University of Glamorgan
Pontyprd
CF37 1DL

26 October 2004

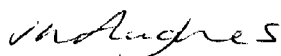
Dear Mr Higginson,

ID: B04Cardiol106 Cardiac Rehabilitation and Women: a qualitative study to explore factors which may affect female adherence/non-adherence to phase 3 post myocardial infarction cardiac rehabilitation

I am pleased to inform you that the above project, which you recently submitted for registration, has been approved subject to a favourable ethical opinion being granted.

We will, in the future, write to you requesting further information regarding the progress and outcome of this project.

Yours sincerely



Dr J Goodfellow
Consultant Cardiologist

Lead Clinician for Bro Morgannwg NHS Trust R&D

School of Medicine
Department of Cardiology
Ysgol Feddygol
Adran Cardioleg



Dr A G Fraser
Uwch Ddarlithydd mewn Cardioleg /
Senior Lecturer in Cardiology
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AGF/JMU
10 December, 2004

Mr R Higginson
Lecturer in Nursing
University of Glamorgan
Pontypridd
CF37 1DL

Dear Mr Higginson

Thank you for your recent letter with further information about your proposed PhD study. I have now read the protocol which you enclosed. I note that your project has received ethical approval from the Multi-Centre Research Ethics Committee for Wales. I have now completed the project registration form and I return it to you so that you can forward it as required.

I note that your protocol mentions a total of 40 or 50 patients, although in your letter you refer to only 15 patients. You will also be aware that a randomised control trial was published that demonstrated little objective benefit from rehabilitation, when studied in very large numbers of patients (West RR et al, British Medical Journal 1996;313:1517-1520). A more recent systematic review has also demonstrated only very slight benefit from psychological rehabilitation (Rees K et al, Psychological Rehabilitation of Cardiac Patients: Systematic Review and Meta Analysis (Cochrane Review, Wiley 2004). If you propose to test an original hypothesis in this project, then it may be useful for you to review the results of these studies.

Yours sincerely

Dr Alan G Fraser
Senior Lecturer and Consultant Cardiologist

c.c. Professor Maurice Scanlon
Director, NHS R & D
University Hospital of Wales
Radnor House
Heath Park
CARDIFF

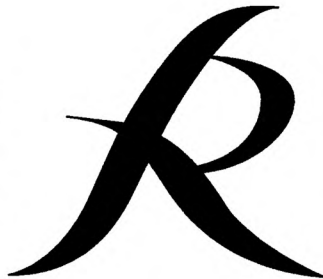
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BUDDSODDWR MEWN POBL
INVESTOR IN PEOPLE

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wales
college of medicine
cymru

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NHS TRUST

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Date

01443 44/3421

12 May 2005

E-mail: Trish.Southway@Pr-Tr.wales.nhs.uk

Research & Development Office

Mr R.J. Higginson
Lecturer in Critical Care
University of Glamorgan
Treforest
CF37 1DL

Dear Mr Higginson,

Re: **R&D Project 162.**
Cardiac rehabilitation and women: A qualitative study to explore factors which may affect female adherence/non-adherence to phase 3 post myocardial cardiac rehabilitation.

With regard to the above research project, the Trust has received notification of Ethics Committee approval, and after studying the relevant paperwork I am pleased to confirm that this project may go ahead. This approval pertains to Pontypridd & Rhondda NHS Trust only. If your project includes patients recruited from other Trusts, it is your responsibility to contact the relevant R&D Office(s) in order to gain approval to commence. Without R&D approval from all Trusts where patients will be recruited Welsh Risk Pool indemnity will not be afforded to the researcher.

Approval lapses if the project does not commence within 18 months of approval. Any serious adverse incidents relating to the project should be reported to the R&D Office and a Clinical Incident Form completed as per procedure. The Research & Development Committee reserve the right to information on the progress of the project at any time and should receive a progress report six monthly and a written report on completion. Please provide the Research & Development Office with the following in order that we may track the progress of the project:

- Notification of Project Start
- Interim Progress Report Forms
- Notification of Project End

Chairman : Cadeirydd
Ian Kelsall O.B.E. B.A. F.R.S.A.



Chief Executive : Prif Weithredwr
Margaret Foster O.B.E. B.A. M.Sc. F.H.S.M. Dip. H.S.M.

PENCADILYS: Swyddfeydd Reolaeth Yr Ymddiriedolaeth, Ysbyty Dewi Sant, Heol Albert, Pontypridd, Morgannwg Canol, CF37 1LB.

Tel: (01443) 486222 Ffacs: (01443) 443842

HEADQUARTERS: Trust Management Offices, Dewi Sant Hospital, Albert Road, Pontypridd, Mid Glamorgan, CF37 1LB.

Tel: (01443) 486222 Fax: (01443) 443842

APPENDIX TWO: Search Strategy

The screenshot shows the EBSCOhost search interface in Microsoft Internet Explorer. The search results are for 'Cardiac Rehabilitation' and 'Women'. The interface includes a search bar, navigation tabs, and a list of results.

Search Results:

- Find:** Cardiac Rehabilitation in TI Title
- and** Women in TI Title
- in:** CINAHL with Full Text

Results for: Cardiac Rehabilitation

Refine Search: Narrow Results by Subject

- Rehabilitation, Cardiac
- Female
- Male
- Middle Age
- Aged
- Questionnaires
- Descriptive Statistics
- T-Tests
- Prospective Studies

Results:

1. [Core components of cardiac rehabilitation/secondary prevention programs: 2007 update: a scientific statement from the American Heart Association Exercise, Cardiac Rehabilitation, and Prevention Committee, the Council on Clinical Cardiology, the Councils on Cardiovascular Nursing, Epidemiology and Prevention, and Nutrition, Physical Activity, and Metabolism, and the American Association of Cardiovascular and Pulmonary Rehabilitation](#). Rubenfire M, ACC CardioSource Review Journal, 2007 Jul; 16 (7): 50-1 (journal article) CINAHL AN: 2009633861
2. [The effects of a collaborative peer advisor/advanced practice nurse intervention: cardiac rehabilitation participation and rehospitalization in older adults after a cardiac event. \(includes abstract\)](#) Carroll DL; Journal of Cardiovascular Nursing, 2007 Jul-Aug; 22 (4): 313-9 (journal article) CINAHL AN: 2009616580
3. [Association of age and quality of life following phase II cardiac rehabilitation. \(includes abstract\)](#) Kardia P,

CINAHL database strategy using combined search terms:
Cardiac Rehabilitation + Women

APPENDIX THREE: Letter & Informed Consent Form

Dear Patient,

I am employed by the University of Glamorgan as a lecturer in critical care nursing.

As part of an educational course, I am looking for volunteers to participate in a study that will investigate the experiences of women who have had a heart attack and who attend cardiac rehabilitation classes.

The study will involve interviewing a number of women during their cardiac rehabilitation programme. Once completed, interviews will be examined and analysed.

Each study participant will be interviewed sometime towards the end of their cardiac rehabilitation programme, with interviews lasting approximately one ½ - 2 hours.

Interviews will be tape recorded, but confidentiality will be maintained at all times.

If you feel you would like to volunteer for this study, then please contact either myself or a member of the cardiac rehabilitation staff to obtain further information and an informed consent form, which must be signed.

Thank you for your time.

Yours Sincerely,

Ray Higginson

Ray Higginson

APPENDIX THREE: continued

Informed consent form (given to each participant)

STUDY TITLE Cardiac Rehabilitation and Women

DEPARTMENT School of Care Sciences, University of Glamorgan

RESEARCHER Ray Higginson

TELEPHONE 01443 483132

PURPOSE

You have been asked to take part in this study because you have recently had a heart attack and have enrolled upon a cardiac rehabilitation programme.

The purpose of this study is to explore your experiences, feelings and opinions of your cardiac rehabilitation programme. This will provide valuable information which might influence the development of cardiac rehabilitation services.

PROCEDURE

You will be interviewed three times during your cardiac rehabilitation programme. Each interview will last between 1-2 hours and will be tape recorded.

During the interviews you will be asked some general questions about your cardiac rehabilitation programme.

Once completed, Ray Higginson will analyse the interviews.

All information will be dealt with in strict confidence; no information which could identify you will be included in the final research report.

Once the study is over, all tape recordings will be destroyed.

RISK

You might experience some mild inconvenience in having to be interviewed for an hour, but it is anticipated the NO risks will be encountered.

If you choose to withdraw from the study (which you are free to do) this will not affect you or your treatment in anyway.

CONFIDENTIALITY

Everything said between you and Ray Higginson is strictly confidential. Nobody but Ray Higginson will hear the tape recorded interviews.

Your identity will be protected.

COERCION AND WITHDRAWAL STATEMENT

The decision to take part in this study is yours and yours alone. You may withdraw from the study at any time you wish.

FINANCIAL RESPONSIBILITIES

There is no financial cost to you from participating in the study.

INFORMATION

You can ask for further information about the study at any time. You are encouraged to ask questions if you wish.

AGREEMENT: Your signature indicates that you have decided to participate in the study after having read the information provided above.

Signature of patient/participant

APPENDIX FOUR: Memo Example

I wrote these next to or after certain sections of interview transcripts. Writing memos helped me understand what was going on and helped me to reflect upon interviews:-

Experiencing an MI had a number of implications for the participants. Having a heart attack induced a sense of fear and led to feelings of depression. Although I haven't empirically measured depression, participants stated that this is how they feel.

The effects of having an MI seem to lead to changes in a participant's lifestyle and sense of self.

If suffering from a heart attack can result in such deleterious effects, then, perhaps, by attending cardiac rehabilitation these effects could be overcome, or at least dealt with? I will explore these issues in any subsequent interviews.

APPENDIX FIVE: Coded sections from interview transcript number one & observational field notes

Ray Higginson:

So, by the time you got home, did you still think it was indigestion?

Respondent:

Oh, yes, very foolish, really. I supposed it was my way of coping with it; I didn't want to accept it could have been anything else. [Coping-Strategies] I am like that anyway; very dismissive of my problems. I just get on with things. [Coping-Strategies] {Memo: Coping strategies refer to the specific attempt, behaviours, efforts, both behavioural and psychological, that people employ to master, tolerate, reduce, or minimize stressful events} Anyway, I went to bed and I woke-up about eleven maybe twelve with this severe crushing pain on my chest. Well, I was immediately sick and my husband said to me that he was going to call an ambulance.

Ray Higginson:

So, you were taken to the hospital?

Respondent:

Yes, I was taken into the coronary care unit. It was there that they said to me that I had had a heart attack.

Ray Higginson:

And how did you feel then?

Ray Higginson:

It was quite frightening. [Fear] {Memo: I noticed, here, that this particular participant had said; 'quite frightened.' Perhaps this illuminates to a particular dimension of fear, that fear has a number of intensities? I should also ask respondent (next time) to explain what she was/is frightened of; dying, another MI, what?} My initial recollection was having so many different people around me all at the same time. That was very scary. [Fear] I also remember apologising to everybody, as if I was wasting their time. {Memo: why would she feel that she was wasting their time? I Need to explore this} Anyway, they said that I was having a heart attack and that they were going to do some tests to confirm it, but that it was most likely that I was having one. They then gave some clot busting therapy and that was like a huge relief; the pain just dissolved away.

Ray Higginson:

How did you feel after being told you had had a heart attack?

Respondent:

I just couldn't believe it. [Disbelief] I know I had pain, and that, but a heart attack? I just kept thinking; this can't be happening to me, [Disbelief] I'm not that sort of person. {Memo: person perceives themselves to be a certain kind of person. Explore this!}

Ray Higginson:

How do you think having a heart attack affected you afterwards, when you got home? Did it?

Respondent:

When I left hospital I was terrified that I would have another heart attack. [Fear] {Memo: participant actually says here what she is frightened of: another MI. First interviewee said similar, that having an MI was frightening, especially worried about having another MI. Is it not the case that one of the } I was scared to do anything. [Fear] I was scared to even go out, in case I over exerted myself. I was also afraid to be left alone. [Fear] I found myself always wanting to know where somebody else was, in case I needed them. It was awful and I'm not usually like that as a person. [Bio-psychosocial-Changes] {Memo: appears that, for this person, having an MI has affected them in a number of different ways?} Then, when I got onto the ward, I was very tearful [Depression / Emotional-Upset] and I was quite upset and emotional when I got back home, [Emotional-Upset] my husband noticed this especially. I was down for a long time, [Depression] to tell you the truth it has only been quite recently that I have felt better [Improvement] and, I am sure, that has to do with coming here. [Explanation] I've found it a wonderful help [Improvement] I had lots of questions to ask and they have answered them all [Explanation] and I've a much better idea of what has happened to me now and I've found that a great help. [Insight]

Ray Higginson:

So, when were you told about cardiac rehabilitation?

Respondent:

When I was in hospital. One of the sisters on the ward was very, very good, you know, I was still trying to come to terms with it. [Shock] I was feeling very tearful [Emotional-Upset] and I was arguing the case, you know, saying I can't be ill I can't be having this heart attack. [Disbelief] She was a great support. She told me all about the rehab programme. [Insight]

Ray Higginson:

So, you knew what the rehab would entail before you started?

Respondent:

Yes, she had gone through the classes and exercises with me, so I had a good idea of what to expect. [Explanation] She told me that patients who attend rehab are much better after a period of time and she encouraged me to attend. My GP also had very firm ideas about cardiac rehabilitation; that it would help boost my confidence and help me get back to my old self. [Explanation]

Ray Higginson:

So, how have you found your cardiac rehabilitation programme, what have been the best parts of the programme?

Respondent:

Oh, I have found it wonderful. [Feeling-Positive] I feel, almost, recharged, [Revitalised] like the person I was before I'd had my heart attack. [Improvement] One of the best parts have been listening to other people who have a similar experience [Sharing Experiences] and having a load of nurses around you so as you can ask them lots of questions. [Explanation] Being able to ask questions was very helpful. I have found the teaching classes very helpful. I now have a better understanding [Increased Knowledge] of what a heart attack is and when I can start doing certain things again. Asking questions gave me the opportunity to learn about what had happened to me. [Insight] Once I started to understand what had happened and that it wasn't necessarily the case that I was going to drop dead from over exertion, some of my initial fear faded. [Improvement] After a heart attack, even though the ward staff are very caring, you are left with a load of questions and I wanted these answered. The nurses, here, have such knowledge that this gives you your confidence back, [Self-belief] confidence to start living again. [Feeling-Positive]

Ray Higginson:

Would you say, then, that having heart attack affected your confidence then?

Respondent:

Oh, yes, definitely. I was scared to do anything, [Fear] go out walking, the shopping, you know? But, here, I have found my confidence to have been restored. [Self-assurance] Coming here has shown me that it is OK to be a little breathless and has taught me not to panic if my heart goes fast when I exercise. I think you need people around you to tell you that these experiences are OK and normal.

Ray Higginson:

How else has the rehabilitation helped you?

Respondent:

Well, as I have just said, I now have much more confidence to go out. [Self-Assurance] Physically I feel a lot fitter than I did before; in fact, I think I feel fitter than I have ever been! [Improvement] I am much more motivated now to get back on track and start getting about again. [Motivation] The lessons they give you here on the right foods to eat has been very helpful, too. [Increased Knowledge]

Ray Higginson:

Would you say that you have been, almost, restored?

Respondent:

Yes. Yes, I think I have been. {Memo: when I asked the participant this question, she seemed, almost, surprised, as if she hadn't considered this explanation before. I must explore this, in future interviews: restoration?} The lessons and knowledge

that they give you and the physical rebuilding is a kind of restoration. {Memo: here, she has picked up on the idea of restoration, claiming that the educational sessions and physical exercise classes have restored her. Of course, whether or not this is actually the case is not that important. What is important is that she feels this to be the case. Why did this particular female continue with her cardiac rehabilitation; because she perceived herself to be restored (?) My husband has noticed it; he says I'm much happier now than after my heart attack. In a way, I think it has helped him, too; me coming to rehab. {Memo: This is something I had not considered before; the affect of rehab on spouse. This is worth pursuing in future interviews}}

Ray Higginson:

That is interesting; your coming to rehab has helped your husband?

Respondent:

Well, he was so very worried about me; always fussing. {Memo: not sure how to open code for this term; 'Fussing.' Perhaps, she is belittling her condition / situation? In a way, maybe she is playing down the seriousness of her heart condition? The manner in which she said this suggests an air of being dismissive} I think he was as frightened as I was, in fact he once told me that he wouldn't know what to do if I had another heart attack, apart from calling for an ambulance. The knowledge I have learnt here [Increased-Knowledge] I've taken back home and told him, so in a way it (rehab) has help us both, really. [Useful-Information]

Ray Higginson:

How have the educational classes helped you, if at all?

Respondent:

Well, I'm amazed at how much fat is in so many foods. [Insight] We have started using margarine, instead of butter, now and we don't eat so much fat. I know chips and food like that is high in fat, but it is what they call the hidden fat that I need help with. They gave us some booklets, which are excellent. [Useful-Information]

Ray Higginson:

Have you ever considered giving up your rehabilitation programme, to stop attending?

Respondent:

No, certainly not. I've found it a wonderful experience [Positive-Experience] and I'm going to miss it terribly when I have to leave. [Sense-of-Belonging] In fact, a couple of us are going to get together, after we have finished. I've made a number of friends here [Companionship] and I'd be sad not to see them again.

Ray Higginson:

Do you mean to say that you have organised an after rehab club?

Respondent:

Yes, that's it. We've met once already, but we hope to make it a regular thing.

Ray Higginson:

It sounds as though you have gained a lot from your rehabilitation and not just in terms of your mental and physical health.

Respondent:

Oh, I've met some great people,[Companionship] I really have found the whole experience most enjoyable,[Wellbeing] even though there were times when I didn't want to do the exercises, I'm glad I did, now, I certainly feel I've benefited from it.[Improvement]

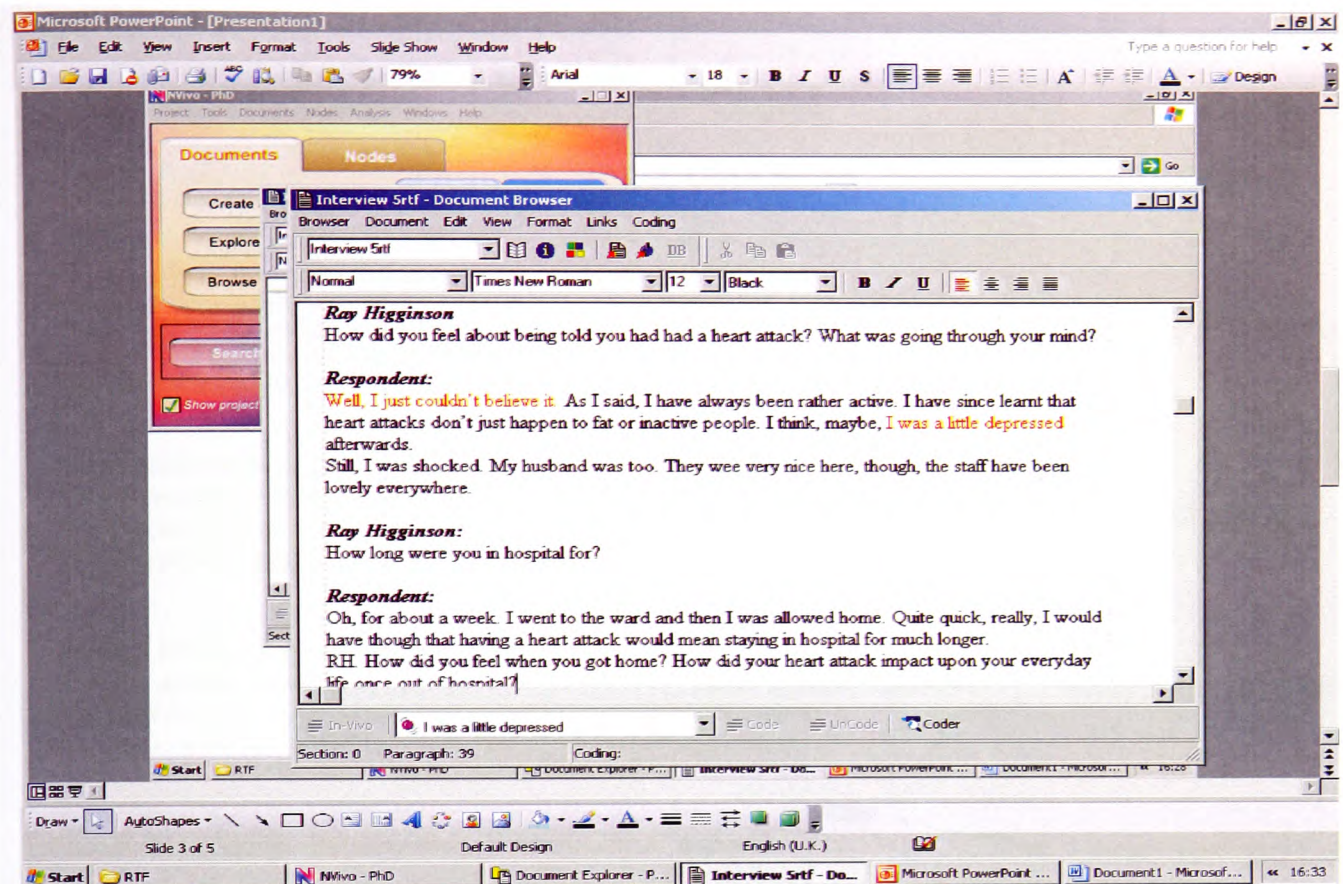
From this interview section a number of concepts can be seen. These were later developed into categories.

APPENDIX FIVE continued: Observation Field Notes

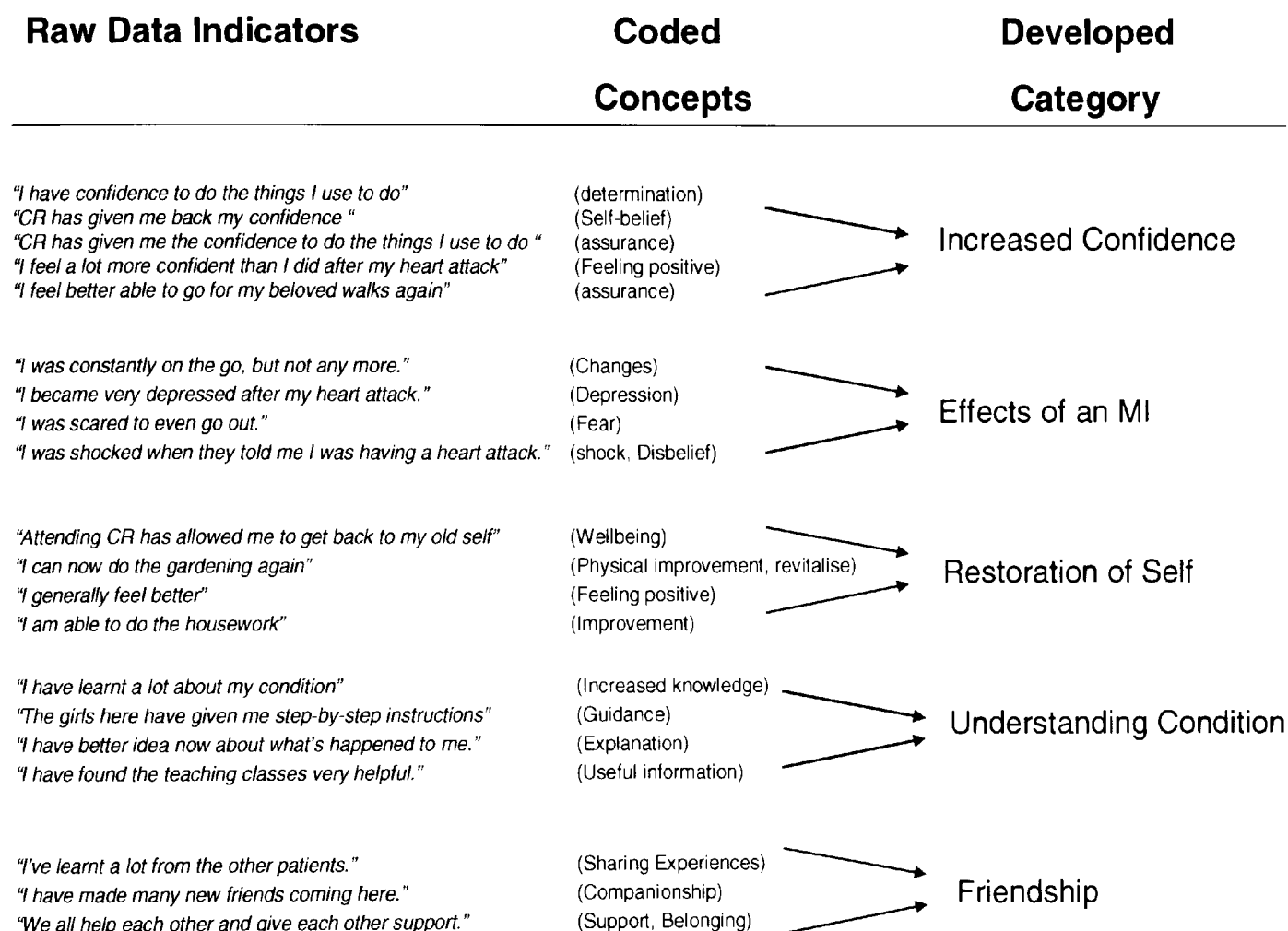
Examples of field notes taken whilst watching CR classes.

- CR centre. Purpose built room with many different types of equipment (treadmills etc) and posters of the heart on the wall.
- Staff are very friendly and everyone seems to get along well with each other.
- Nobody seems out of place or not taking part.
- Question time at the end of educational class when down well, women engaging in asking for information.
- The discuss many different things, diet, health and hobbies.
- One woman very vocal and enthusiastic.
- Groups: women seem to group themselves together. I must explore why this is.
- They obviously engage in exercise and clearly enjoy doing the exercises.
- Some of the women are very vocal during class, asking lots of different questions

APPENDIX SIX: Screen Picture showing coding for depression



APPENDIX SEVEN: Indicator Model for Developed Categories

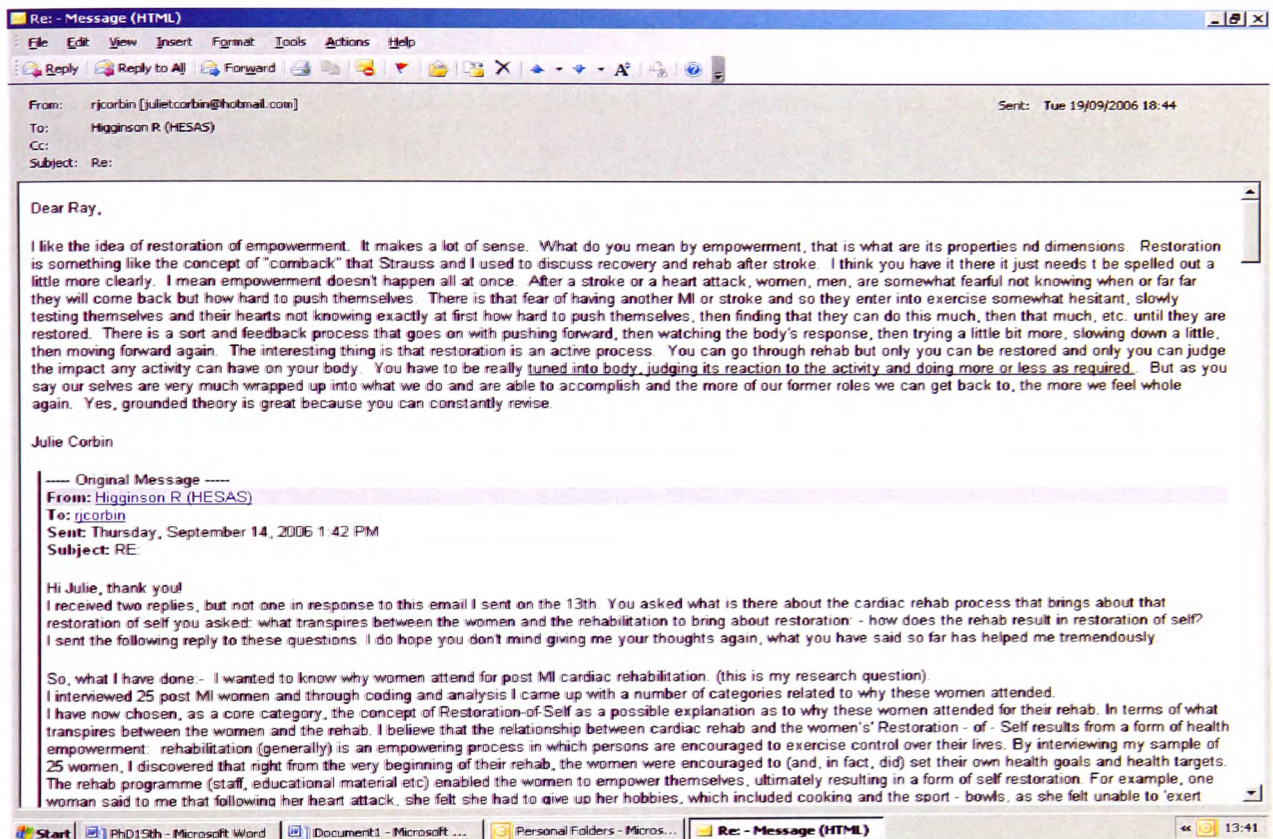


This diagram shows the concept indicator model. Certain sections of text are coded and given a conceptual label. Thus, raw data stand as indicators for concepts. For example, the sentence; *"I became very depressed after my heart attack"* stands as an indicator for the concept: Depression. Concepts are then grouped and then developed into categories. In this diagram, examples of some of the concepts and their indicators are presented to further demonstrate data coding, labelling and analysis.

APPENDIX EIGHT: Email communications form Julie Corbin

The following pages are copies of email communications between me and Julie Corbin, co-author of: *'Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory'* which was published in 1998.

I wrote to Julie with a number of queries related to my developing model and grounded theory in general.



----- Original Message -----

From: [Higginson R \(HESAS\)](mailto:Higginson R (HESAS))

To: julietcorbin@hotmail.com

Sent: Tuesday, September 12, 2006 7:47 AM

Dear J Corbin,

I write in the hope that you will be able to help me.

I am a nurse lecturer at the University of Glamorgan in South Wales, UK.

I am currently undertaking my PhD using grounded theory exploring why women attend for post myocardial infarction rehabilitation.

I have been using your excellent book (co-written with Strauss) and I have found you structured approach very helpful.

I have undertaken 25 interviews with post heart attack women and I have analysed the transcripts (using NVivo) and developed a number of categories.

However, I have a little query...

A number of categories have emerged which highlight why my sample of 25 women attended for post-MI cardiac rehab. These include: Increased

feelings of Confidence, Increased Knowledge and Restoring of Self. However, I am now at the 'discussion of theory' stage and so last week I sat down and thought long and hard about what I was going to discuss. When reviewing what I had done I came to the conclusion that what I have, really, is 25 'restorative narratives'. By this I mean that when reading through my interviews, they all seem to indicate the telling of a story about restoration: I was once healthy, then I had my heart attack, then I attended rehab and now I feel better (restored).

I was rather hoping to discover a process (which GT is good at) and I think the construction of a restorative narrative does indicate the process of restoration. However, I am unsure whether this approach is correct when using GT. Does this sound plausible to you: the telling of a restorative narrative as indicating the process of restoration following a heart attack? Can one develop a 'grounded theory' by looking at the production of narratives?

I have to say that I have found the GT method very useful; it actually works in terms of producing concepts and categories. However, when it comes to developing theory I have found this quite subjective and I just wanted to 'run this by' someone and who better than the ultimate GTist! I appreciate that you probably receive many email every week from PhD students, but your thoughts on this would be much appreciated.

With very best wishes,

Ray Higginson

Ray Higginson
Senior Lecturer in Critical Care Nursing University of Glamorgan

From: rjcorbin [mailto:julietcorbin@hotmail.com]
Sent: Tue 12/09/2006 20:05
To: Higginson R (HESAS)
Subject: Re:

Dear Ray,

You remember that we make a big point in the book of saying the the core category need not be a process. That process can come into it in many ways. You have 25 stories about restoration, but getting to that point means that these women went through a lot, first the heart attack, then the rehab, and now feeling better. But what I find interesting is how they come to define themselves as "restored" and what does being restored mean to them, their lives and their selves. I'm sure there are common threads in the narratives. I mean you have 25 life stories but if you think at a conceptual level there are similarities as well as differences. Several years ago I collected data for a study that I started but never completed on the biographical implications of having a cardiac life threatening event. I never completed it because I went on to other things but though each story was different, and many went to cardiac rehab, and they resumed their lives, there was still this thing, this change in outlook on life, for many a change in life style, a not taking life so for granted. So, I guess I want to know what does restored mean for our group of people?

You can use grounded theory to come up with well developed themes but you can't call your finding a "theory" if you have narrative life stories. They are different approaches to qualitative researcher. In other words you need a theory to have a theory but you can have a great study by telling narratives. It all depends on how you handle the concept of "restored". I would have to see more of what you have to know how it would be best for you to proceed.

I hope that I've been helpful

Julie Corbin.

----- Original Message -----

From: [Higginson R \(HESAS\)](#)

To: [rjcorbin](#)

Sent: Tuesday, September 12, 2006 1:36 PM

Subject: RE:

Hello Julie,

Well thank you so very much for your reply; once I got over the shock that the great J. Corbin had replied, I read what you had to say with great interest. I truly am grateful for your thoughts. What you said made a lot of sense and I am clearer now as to how to proceed. May I trouble for just a few more moments of your valuable time.....?

I have included, below, and attached what is, in essence, my PhD 'Theory' which is that attending post-MI cardiac rehab facilitates the *process* of restoration for post heart attack females. I will use 'restored' as the core category (from the narratives), but I will develop this into a grounded theory in my penultimate chapter. I am proposing the following sequence of events (process) as the basis for my theory:

Women have roles in society - wife, mother, lover, friend, carer etc

Having a heart attack had a number of implications, for the women in my study, such as experiencing fear, reducing confidence (this is what emerged from coding)

As a consequence of the MI women have to redefine their life roles and their perception of self (these also emerged from the constant comparative process and coding)

Going to rehab allowed the women to empower themselves and this, ultimately, allowed them to restore themselves (the women actually stated that rehab helped them to restore themselves in terms of their roles, confidence etc

This restoration resulted from

Thus, my GT is that post-MI cardiac rehab facilitates empowerment and facilitates the process of restoration of self:

Causal Conditions

Experiencing an MI (and its consequences) alters perception of Self

Contextual and Intervening Conditions

Expectations of CR / Wanting to be Restored

Not being able to take part

Educational Material

Family and Friends Support

Action/Interactions

(Continued) - Attendance / participation in Cardiac Rehabilitation classes:
Information Seeking / Sharing
Group Interaction

Consequences

Increased understanding / knowledge of condition
Improved confidence
Formation of friendships
Resumption of activities, hobbies & Lifestyle
'Restoration of Self'

Core Category

Feelings of Restoration of Self

Restoration of self emerged as the core category in this study and one that permeated all aspects of attending for post-MI rehabilitation and the one category that made sense of what was going on.

I think that this will now be a credible grounded theory study. I have, in my other chapters, discussed coding, category development etc and I will use the construction of narratives to help me develop my restorative process theory.

Thanks again for your valuable time, your thoughts on my 'Theory' would (again) be appreciated. Can I also say that it is an honour to have you even read my work, let alone comment upon it. Both my supervisor and I were excited by your reply: your work is internationally known and respected, but I need not tell you that, for you must surely know this.

Thanks again, I look forward to hearing from you again, if convenient,

Best wishes from Wales,

Ray Higginson - Senior Lecturer, UoG

From: rjcorbin [mailto:julietcorbin@hotmail.com]

Sent: Tue 12/09/2006 22:41

To: Higginson R (HESAS)

Subject: Re:

What you have sounds great. What is there about the rehab process that brings about that restoration of confidence in their abilities to do and their selves. What transpires between the women and the rehab the doing of things? I didn't quite get that.

Julie Corbin

----- Original Message -----

From: [Higginson R \(HESAS\)](#)

To: [rjcorbin](#)

Sent: Wednesday, September 13, 2006 3:44 AM

Subject: RE:

Hi Julie,

Thank you for your reply.

I believe that the relationship between cardiac rehab and the women's' Restoration - of - Self results from a form of health empowerment: rehabilitation (generally) is an empowering process in which persons are encouraged to exercise control over their lives. By interviewing my sample of 25 women, I discovered that right from the very beginning of their rehab, the women were encouraged to (and, in fact, did) set their own health goals and health targets. The rehab programme (staff, educational material etc) enabled the women to empower themselves, ultimately resulting in a form of restoration. For example, one woman said to me that following her heart attack, she felt she had to give up her hobbies, which included cooking and the sport - bowls, as she felt unable to 'exert herself.' When she started her rehab she negotiated with staff (all female) that she wanted to get back to her previous lifestyle and hobbies, the lifestyle she had before her heart attack. Through coding and constant comparative analysis, it emerged that over the period of her rehab she was able to learn about her heart condition and about the different types of exercise permitted following a heart attack (Understanding) and this (so she said) gave her the confidence (Increased Confidence) to engage in rehab exercise regimens. She then stated that she then felt able to engage in her hobbies again and that she felt restored. (In fact, although I developed the core category Restoration through increasing abstraction and theorising, a number of the women did actually use this term). So I see the rehab programme as empowering and that this empowerment is related to the process of restoration.

Other women talk about being able to look after grandchildren, again, by attending rehab, or being able to look after their elderly husband again, as a result of attending for rehab. Indeed, I was amazed that so many elderly women still prioritise the wellbeing of others over themselves. I have also discussed, elsewhere in my PhD thesis, that the traditional place of work for women is the home. Thus, we send female heart patients to work to recover after a heart attack!! This makes as much sense as sending a fireman to the fire-station to recover after open heart surgery!

I had, initially, though that, perhaps, 'Empowerment' might be the core category, but I dropped this in favour of 'Restoration' because I feel that restoration can result from being empowered, rather than the other way around. Indeed, I even wrote a paper about empowerment through Cardiac Rehabilitation for the British Journal of Cardiac Nursing. But that is the beauty of GT; it does allow for one to grow and develop.

Thanks again for reading my thoughts; it's hard to condense an 80,000 word thesis into an email!

Best wishes from Wales,

Take good care,

Ray Higginson – Nurse Lecturer, UoG, Wales, UK

From: rjcorbin [mailto:julietcorbin@hotmail.com]

Sent: Thu 14/09/2006 17:57

To: Higginson R (HESAS)

Subject: Re:

Fif I get back to you about your e=mail on the 13th? I have house guests and I/m not sure what e-mails I answered and which I did not.
I try to get back to students right away.
Julie Corbin

----- Original Message -----

From: [Higginson R \(HESAS\)](#)

To: [rjcorbin](#)

Sent: Thursday, September 14, 2006 1:42 PM

Subject: RE:

Hi Julie, thank you!

I received two replies, but not one in response to this email I sent on the 13th. You asked what is there about the cardiac rehab process that brings about that restoration of self you asked: what transpires between the women and the rehabilitation to bring about restoration: - how does the rehab result in restoration of self?

I sent the following reply to these questions. I do hope you don't mind giving me your thoughts again, what you have said so far has helped me tremendously.

So, what I have done:- I wanted to know why women attend for post-MI cardiac rehabilitation. (this is my research question).

I interviewed 25 post-MI women and through coding and analysis I came up with a number of categories related to why these women attended.

I have now chosen, as a core category, the concept of Restoration-of-Self as a possible explanation as to why these women attended for their rehab. In terms of what transpires between the women and the rehab. I believe that the relationship between cardiac rehab and the women's' Restoration - of - Self results from a form of health empowerment: rehabilitation (generally) is an empowering process in which persons are encouraged to exercise control over their lives. By interviewing my sample of 25 women, I discovered that right from the very beginning of their rehab, the women were encouraged to (and, in fact, did) set their own health goals and health targets. The rehab programme (staff, educational material etc) enabled the women to empower themselves, ultimately resulting in a form of self restoration. For example, one woman said to me that following her heart attack, she felt she had to give up her hobbies, which included cooking and the sport - bowls, as she felt unable to 'exert herself.' When she started her rehab she negotiated with staff (all female) that she wanted to get back to her previous lifestyle and hobbies; the lifestyle she had before her heart attack. Through coding and constant comparative analysis, it emerged that over the period of her rehab she was able to learn about her heart condition and about the different types of exercise permitted following a heart attack (Understanding) and this (so she said) gave her the confidence (Increased Confidence) to engage in rehab exercise regimens. She then stated that she then felt able to engage in her hobbies again and that she felt physically and mentally 'restored'. (In fact, although I developed the core category Restoration of Self through increasing abstraction and theorising, a number of the women did actually use the term of being restored). So I see the rehab programme as empowering and that this empowerment is what facilitates the process of restoration.

Other women talked about being able to look after grandchildren, again, by attending rehab, or being able to look after their elderly husband again, as a result of attending for rehab. Indeed, I was amazed that so many elderly women still prioritise the wellbeing of others over themselves. I have also discussed, elsewhere in my PhD thesis, that the traditional place of work for women is the home. Thus, we send female heart patients to work to recover after a heart attack!! This makes as much sense as sending a fireman to the fire-station to recover after open heart surgery!

I had, initially, though that, perhaps, 'Empowerment' might be the core category, (could empowerment best explain why the women attended?) but I dropped this in favour of 'Restoration' because I feel that restoration can result from empowerment, rather than the other way around. Indeed, I even wrote a paper about empowerment through Cardiac Rehabilitation for the British Journal of Cardiac Nursing. But that is the beauty of GT; it does allow for one to grow and develop.

Thus, I believe that my grounded theory will go something like this:

Women have roles in society - wife, mother, lover, friend, carer etc

Having a heart attack had a number of implications, for the women in my study, such as experiencing fear, reducing confidence (this is what emerged from coding)

As a consequence of the MI, the women had to redefine their life roles and their perception of self (this also emerged from the constant comparative process and coding)

Going to rehab allowed the women to empower themselves and this, ultimately, allowed them to restore themselves (the women actually stated that rehab helped them to restore themselves in terms of their roles, confidence etc)

So empowerment lead to the Restoration of Self.

Thus, my grounded theory is that women attend for post MI cardiac rehabilitation because by doing so they are empowered and this empowerment facilitates a process of restoration of self

I guess, what I am asking, is this: does this sound credible to you? I have read, somewhere, that so long as someone can show that their theory is grounded in the data that they have obtained then their theory can, indeed, be considered credible. Certainly, from coding and analysing I discovered a number of MI effects. Through the same process, I also discovered that, for the women of my study, their rehab helped them 'restore' themselves.

Thanks again for reading my thoughts; it's hard to condense an 80,000 word thesis into an email!

I look forward to your reply and I hope this will not inconvenience you too much!

Best wishes from Wales,

Take good care,

Ray Higginson – Nurse Lecturer, UoG, Wales, UK

Dear Ray,

I like the idea of restoration of empowerment. It makes a lot of sense. What do you mean by empowerment, that is what are its properties and dimensions. Restoration is something like the concept of "comeback" that Strauss and I used to discuss recovery and rehab after stroke. I think you have it there it just needs to be spelled out a little more clearly. I mean empowerment doesn't happen all at once. After a stroke or a heart attack, women, men, are somewhat fearful not knowing when or far far they will come back but how hard to push themselves. There is that fear of having another MI or stroke and so they enter into exercise somewhat hesitant, slowly testing themselves and their hearts not knowing exactly at first how hard to push themselves, then finding that they can do this much, then that much, etc. until they are restored. There is a sort and feedback process that goes on with pushing forward, then watching the body's response, then trying a little bit more, slowing down a little, then moving forward again. The interesting thing is that restoration is an active process. You can go through rehab but only you can be restored and only you can judge the impact any activity can have on your body. You have to be really tuned into body, judging its reaction to the activity and doing more or less as required. But as you say our selves are very much wrapped up into what we do and are able to accomplish and the more of our former roles we can get back to, the more we feel whole again. Yes, grounded theory is great because you can constantly revise.

Julie Corbin

APPENDIX NINE: Related Publications

Higginson R (2003) Women are neglected when it comes to cardiac rehabilitation. *British Journal of Nursing*. Vol. 12, No 12, Pg 713.

Higginson R (2006) Why do women attend and continue with cardiac rehabilitation? *British Journal of Nursing*. Vol. 1, No. 2, Pg 95-102.

Higginson R (2006) Fears, worries and experiences of first-year pre-registration nursing students: a qualitative study. *Nurse Researcher*, Vol. 13, No. 3, Pg 32-47.

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Women are neglected when it comes to cardiac rehabilitation

Heart disease is a leading cause of premature death in the UK (Peterson and Rayner, 2002). Every year 150 000 people suffer a myocardial infarction (MI) (British Heart Foundation, 1999). Heart disease is the number one killer of women in the industrialized world, with MI being the primary cause of death for women who are more than 40 years of age. Meta-analysis of studies suggests that women's risk of dying during the first 2 weeks after a MI is double that of men (Schenck-Gustafsson, 1996).

The Department of Health (DoH) maintains that post-MI rehabilitation programmes should take place at an early stage and be continuous as research has shown that they can reduce the number of post-MI deaths, reduce post-MI morbid events and result in an increase in quality of life for the post-MI patient (Tod et al, 2002). However, a major problem identified within cardiac rehabilitation (CR) research studies is that of patient non-adherence, particularly among the elderly female population (DoH, 2000).

Most research into heart disease and/or CR programmes focuses upon men (Martensson et al, 1998; Rhodes and Bowles, 2002). Indeed, it is still widely believed that heart disease is a problem that is mainly encountered by men (King et al, 2002). Women themselves underestimate their risk of heart disease as do medical and nursing staff (Ebbesen, 1999). These false beliefs may account for why women are less likely to be diagnosed with a cardiac problem and why they are less likely to receive cardiac treatment and care.

Research which has examined heart disease in women shows that women can benefit just as much as men from cardiac treatment, care and rehabilitation (Plach, 2002). Despite CR now being embedded in

UK government policy, women are still under-represented in all aspects surrounding CR (Thow et al, 2000).

CR is a multidisciplinary intervention, designed to improve post-MI quality of life and reduce post-MI morbidity and mortality. Although great strides have been made in raising awareness that heart disease kills thousands of women every year, women are less likely to be enrolled upon a rehabilitation programme and those that are are more likely to drop out of such programmes.

More research needs to be conducted into how women suffer, recover from and endure heart disease. Once this has been done, appropriate, gender-specific CR programmes can be developed which will improve the quality of life for all female sufferers of MI and/or infarction. **BJN**

Ray Higginson

Lecturer in Critical Care, University of Glamorgan, Wales

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Why do women attend and continue cardiac rehabilitation?

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Coronary heart disease (CHD) is the number one killer of women in the post-industrialized world. It kills more women in the UK than any other single disease, including breast cancer, lung cancer or respiratory disease (British Heart Foundation, 2004). Each year over 40 000 women die of heart disease in the UK (Collins, 1996).

Myocardial infarction (MI) is the primary cause of death for women aged over 40 years. Within 6 years of having an MI more women than men will have another one (Crane, 2005). Furthermore, no aspect of women's lives escapes the impact of heart disease (Rhodes and Bowles, 2002).

The Department of Health (2000) has identified health gains and service targets to achieve improvement in the quality of life of all people with cardiovascular disease. Cardiac rehabilitation programmes are an important part of this agenda. They provide patients with knowledge of their illness and information about improving their quality of their life after an MI. They also offer patients the opportunity to take part in structured exercise regimens which improve their cardiac function and aid recovery (Rhodes and Bowles, 2002).

Despite the established and published benefits of cardiac rehabilitation, it has been suggested that women are more likely to drop out of rehabilitation than men (Radley et al, 1998) and that women are still under-represented in all aspects of cardiac rehabilitation (Thow et al, 2000). Although a number of studies have suggested possible reasons for this, it is difficult to draw conclusions because most of the evidence comes from studies on men under 70 years (Hamilton and Seidman, 1996; Thow et al, 2000).

The author originally intended to undertake qualitative research aimed at exploring the factors affecting women's decisions to withdraw from cardiac rehabilitation programmes. However, it became apparent early in the data collection/data analysis stage that rather than withdrawing from cardiac rehabilitation (as the published literature had suggested they might do) the participants actually continued, adhered to and completed their programmes.

Furthermore, when these women were questioned about their decisions, the reasons they gave were revealing and did not always fit in with what the published reports had suggested. Consequently, the focus of the research changed at an early stage from an exploration of discontinuation to an exploration of continuation.

The research question

Two key questions were considered from the outset: What social or psychological factors affect women's decisions initially to attend cardiac rehabilitation? Once enrolled, what factors affect women's decisions to continue? Through considering these two key questions, the following research question was formulated:

What factors affect women's decisions to attend phase three post-myocardial infarction cardiac rehabilitation programmes?

Methods

In an attempt to explore and answer this question, a qualitative research design was employed as it was believed that this would yield much information on women's decision-making processes about cardiac rehabilitation. As Cohen et al (2001) argue, the research design and methodology should be appropriate to the question and it would

ABSTRACT

Cardiac rehabilitation is a multidisciplinary intervention, designed to improve the life of the post-myocardial infarction (MI) patient and reduce his/her morbidity and mortality. Although the benefits apply equally to women and men, research shows that patient non-attendance particularly among the elderly female population is an important problem.

This qualitative study (which forms part of a much larger doctoral study) explores some of the factors that influence women's decisions to attend cardiac rehabilitation after an MI. Using a feminist grounded theory research approach, ten female post-MI patients were interviewed about their cardiac rehabilitation.

Preliminary analysis suggests that women choosing to attend claim that it increases their self-confidence, understanding of their condition and feeling of empowerment. They perceive themselves to be 'restored' to a functional level they had had before their MI.

Information gained from this study could be used to inform the development of gender-specific cardiac rehabilitation programmes.

KEY WORDS

• Cardiac rehabilitation • Empowerment • Women
• Myocardial infarction

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be very difficult to explore women's decision-making processes using a quantitative approach. It was believed that a feminist grounded theory research method was appropriate as it would be particularly suitable for exploring and explaining the social and psychological processes that women undergo with regard to their cardiac rehabilitation. The feminist perspective was also chosen because the focus of this study was women and this would help inform, shape and guide the research process.

Grounded theory

A research method was needed that would allow an exploration of social processes, as well as meaning. One of the most commonly used frameworks for the undertaking of qualitative research is the grounded theory approach developed by Glaser and Strauss (1967). According to Cresswell (1998),

the intent of a grounded theory study is to generate or discover a theory, an abstract analytical schema of a phenomenon that relates to a particular situation.

In the grounded theory method, theory emerges from analysis of textual data. Recurring themes can be identified by analysing the text line by line. As a result of this process, theories are said to 'grounded' within the data that has been collected.

The feminist grounded theory research method was considered to be the most appropriate as it can help and inform nurses about their practice and has been used widely within the discipline. Sheldon (1998) argues that the grounded theory approach,

appears to be well suited to providing nurses with an understanding of social behaviours so that they can enhance patient care.

Although the aims of the study meant that a qualitative research design was the natural choice, in choosing a specific research methodology for the research, a number of factors had to be considered. For example, the research method should allow for an exploration of processes, as well as meaning.

According to Abercrombie et al (1994) phenomenology lacks the necessary assumptions about the existence of causal powers inherent within social structures to be of use when exploring psycho-social processes. Thus, in order to explore women's decision-making about rehabilitation, the phenomenological method would not have been the most appropriate one to use. It was decided, therefore, that grounded theory would be the best choice in this study as this would allow for explorations of process as well as meanings.

Feminist grounded theory

A number of authors attest the usefulness of feminist grounded theory when studying complex issues related to women (Keddy et al, 1996; Kushner and Morrow, 2003).

Other reasons emerged which supported the use of a feminist framework.

Roberts (1988) maintains that in sociological research there has been little basic theoretical work that takes account of women or of how the research process is influenced by or affects women. Roberts also asserts that sociological text books that dictate how to research, question and interview women have been (some would say remain) based on a masculine view of social reality, which, according to Roberts (1988), 'is fundamentally at odds with the viewpoints of women as social actors.'

Although there are many ways to collect data in qualitative research, the primary ways in grounded theory are by interviews and observations. The problems, however, inherent in a male researcher interviewing or observing women using criteria based on a traditionally masculine sociological world-view meant that a framework was needed to address what Morgan (1988) calls 'the dominant male rationality of sociology.' Feminists have for a long time recognized the inherent bias in modern sociological research and the traditional way in which sociology has operated within a patriarchal paradigm.

Thus, given that women were the focus of the research a feminist grounded theory methodology was considered to be the most appropriate for an exploration of women's decision-making and attendance at phase three cardiac rehabilitation programmes.

Ethical considerations

Ethical permission for the study was obtained from the multi-centre research ethics committee (MREC) and the local research ethics committee (LREC). Participants gave informed, written consent and were informed that they could withdraw at any time.

The anonymity of the participants was stressed from the outset, and participants were informed that their identity would not be disclosed and their confidentiality would be maintained at all times. Names have been changed throughout this article.

The sample

The study, which is part of an ongoing and much larger doctoral study, was undertaken in three South Wales hospital physiotherapy departments where cardiac rehabilitation classes took place. Participants were interviewed in the departments after they had finished their class.

A purposive sample of ten women who were attending phase three rehabilitation classes was obtained. All were aged between 39 and 75 years.

The women were approached by either a physiotherapist or cardiac rehabilitation nurse. Only women who had been diagnosed with an MI were included in the study. Women who were attending following angioplasty and/or surgery for heart valve replacement were excluded. Once the participants had agreed to take part, each of them was interviewed about their cardiac rehabilitation.

According to Strauss and Corbin (1998), sampling should continue until saturation is achieved. As this study

formed part of a much wider and larger research project, saturation of developed categories was not reached. Although this is a potential weakness of the study, sufficient data were obtained to inform initial category development and to inform and contribute to the larger study.

Data collection

Data were collected over 4 months using semi-structured interviews. Interviews are essential in grounded theory research, in particular, in qualitative research, to explore the experiences and perceptions of participants.

To generate theory from the data questions had to be probing enough to achieve the study's aim of exploring attendance at cardiac rehabilitation programmes.

Cohen et al (2000) advocate the use of questions such as 'tell me about your cardiac rehabilitation programme' and 'why do you continue to attend your cardiac rehabilitation programme?' Cohen argues that such questions encourage participants to express their opinions in a narrative style.

Using the feminist methodology, questions addressed how an MI had affected the participants, as women. In addition, participants were asked about whether their cardiac rehabilitation had addressed any of their female needs. Interviews were recorded and lasted between 60 and 75 minutes.

Data analysis

Once the data had been obtained, initial coding of the data began. Interviews were transcribed verbatim and, in line with the grounded theory method, categories and their properties were constructed through line-by-line analysis of the transcribed text.

LoBoindo-Wood and Haber (1994) maintain that in grounded theory research data-collection and analysis should be undertaken at the same time. In addition, data collection and initial coding should run simultaneously. Initial coding was commenced by opening up the text, identifying properties and developing these into categories. A category is a broad theme that makes sense of what informants have said (Strauss and Corbin, 1998). This process is called 'open coding'.

Open coding began with an exploration of all the different facets of information that were considered to be interesting for the study. The aim of this process was to produce a relevant list of properties that the participant felt necessary to reveal (Smith and Biley, 1997). While analysing the data, certain key questions were kept in mind such as 'What is going on here?' 'What is significant about certain sections of the text?'

By analysing the interview transcripts, the statement 'I was scared to even go out in case I over-exerted myself' was identified as forming part of the property of fear. In addition, the statement 'I was very low after I had my heart attack. I couldn't believe that it had happened to me' formed part of the properties for depression and disbelief. Together, the properties of fear, depression and disbelief were developed into the category 'life effects of a myocardial infarction' (Figure 1).

The statement, 'attending cardiac rehabilitation classes has given me back my confidence and I now feel much more determined to get back to my old self', contains the properties for assurance and determination. This was developed into the category 'increased confidence'. Other emergent categories were 'restoration of self' and 'understanding of condition'.

While the initial data were being analysed, additional data were continuously collected. Old and new data were continuously compared using a process known as constant comparative analysis. The author used constant comparative analysis to look for recurrent statements. Any statements that were subsequently collected were then compared to these initial categories.

Results

Emergent categories

The categories to emerge from the study were:

- ♦ Life effects of a heart attack
- ♦ Restoration of self
- ♦ Increased confidence
- ♦ Understanding condition.

Before theory development can begin and a grounded-theory proposed, it was necessary to explore each of these emergent categories.

Life-effects of a heart attack

All ten participants were asked about how the heart attack had affected them in their everyday lives. The experience had a physical, psychological and emotional impact on the women. One woman described her feelings on discharge from hospital, while she was waiting to start a cardiac rehabilitation programme:

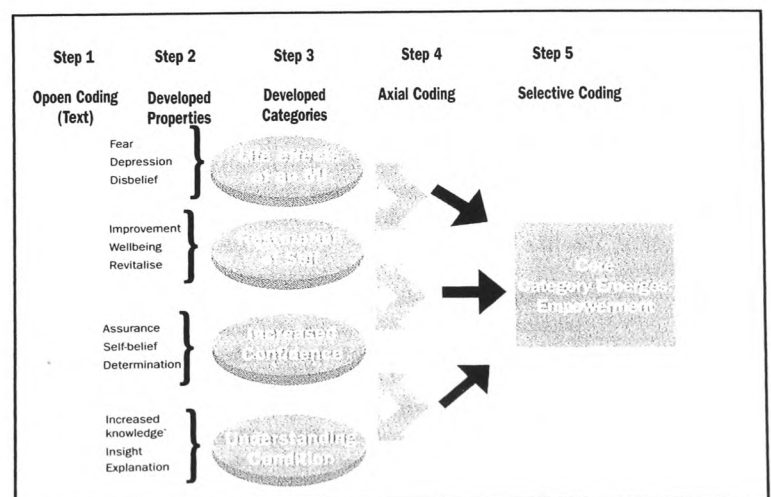


Figure 1. Open coding and category development. Life effects of a myocardial infarction.

When I left hospital I was terrified that I would have another heart attack. I was scared to do anything

Feeling scared about physical activity was also a common concern:

I used to be able to walk everywhere and do all of the housework. Once I had my heart attack I became nothing but a shadow of my former self. I felt I couldn't do anything

I was scared to even go out, in case I over exerted myself.

While waiting to start the cardiac rehabilitation programme one participant considered the fear of having another heart attack the worst of her worries:

I was really frightened after having my heart attack. I was petrified that I would die in the night, or die on my own if my husband wasn't there with me in the house. This fear was the worse thing for me. Coming to rehab has allowed me to get over it. It is the fear of the unknown, but at rehab you get a lot of information that helps you deal with your fears.

The effects of an MI also affected the psychological moods of the participants:

I was very low after I had my heart attack. I couldn't believe that it had happened to me. I know it sounds silly, but I was very afraid that I was going to suddenly die; that my heart was going to just stop."

One participant expressed how she felt that she had lost her optimism for the future:

I was very scared to go out. I would sit around that house feeling very sorry for myself. I don't know whether I was actually depressed, but I seemed to lose all my natural optimism, I felt that I had nothing to look forward to.

Participants also reported that their heart attack prevented them being able to pursue normal everyday activities like hobbies:

My biggest passion in life is gardening. I felt that I was unable to do this after my heart attack as I was told to take it easy. This had made me very sad.

I remember my husband saying to me that I should take it easy and avoid cooking. The thing is, cooking is my hobby, I just love it.

After asking the participants to explain how they had been affected by their heart attacks, they were asked how they felt about their cardiac rehabilitation programmes

and why they continued to attend. They were encouraged to discuss whether their rehabilitation programme had helped them and, if so, how? Furthermore, the participants were asked to explain why they continued to come back to rehabilitation week after week.

Restoration of self

By attending cardiac rehabilitation classes after an MI, the participants felt able to regain the level of function they had before their heart attack. It is also important to note that they were beginning to feel like they did before the MI. Cardiac rehabilitation helped them address many of the problems they faced after their heart attacks:

Attending cardiac rehabilitation has allowed me to get back to my old self. I used to love cooking, but after my heart attack I was unable to do it. The rehab has helped, though.

I definitely feel more like I used to. I go walking again, I am able to do the gardening and I can now enjoy looking after my grandchildren again.

Participants reported that attending cardiac rehabilitation classes had led to improvements in their physical ability:

Since I have been coming to rehab, I feel much fitter than I did before. I used to get breathless and I would get worn out very quickly. Here, though, they allow you to do gentle exercises and this has built me up so that I now feel much more physically better. I just feel generally better for coming.

Another asserted that the physical exercise component of her rehabilitation had given her the most benefit:

I enjoy all aspects of the rehabilitation classes, but, for me, the best bit is the exercise. This has given me tremendous confidence to become more active again.

Being able to do things that had previously been part of their everyday lives was also one of the main reasons given for continuing to attend cardiac rehabilitation classes:

I feel much more able to do all of the things I used to enjoy doing before my heart attack. I wanted to do things, like I would normally do, and coming to rehab has helped me achieve this.

I am much more motivated now to get back on track and start getting about again.

Increased confidence

When pressed to discuss certain aspects of their cardiac rehabilitation programme, all of the participants maintained that through attending classes, they had regained much of the confidence they had lost in the weeks following their heart attack:

When I had my heart attack I lost the confidence to do all of the things I had been used to doing before. The cardiac rehabilitation programme has given me back this confidence. I now feel a lot more confident than I did after my heart attack.

The reason I wanted to come on to something like this was that I wanted to get my confidence back.

A number of the participants believed their increased confidence was a result of the exercise regimens which form part of post-MI rehabilitation programmes:

I was very apprehensive about undertaking any form of exercise after my heart attack. I didn't think I could do it. However, I have done the exercises here and I coped really well, I didn't have any pain or discomfort and I surprised myself with how much I could do. I now have much more confidence to go out shopping on my own, to become more and more active.

I am a pretty outgoing and confident sort of person anyway, but I feel much more able to go out for my beloved walks with my husband again. I have found the rehabilitation classes a real help, the staff are lovely. The whole experience, especially the exercises, has given my confidence a much needed boost.

One participant valued the exercises so highly she was extremely disappointed when she was advised not to take part because she had become short of breath and had experienced some mild chest pain.

I don't feel that I have achieved anything today, because I couldn't take part in the exercise class because I felt a little unwell and the nurse suggested that I sit today's class out. I felt a bit of a failure.

Understanding their condition

Apart from increasing their confidence, the participants claimed that receiving information enabled them gain a greater understanding of their condition and of the lifestyle changes needed to prevent another heart attack. It was not just exercise that appeared to increase their confidence. Participants also spoke about how they became more informed at the classes and this boosted their confidence:

I was taken to a cardiac ward after my heart attack and although the staff were lovely, they didn't have a lot of time for too many questions from me. I left hospital quite scared and not really knowing what had happened to me or what I was or wasn't supposed to do. Here though, at rehab, I was told a lot of information. I really understand now what I can expect for the future and that I can look forward to a normal life again. I am certainly a lot more confident now.

The girls here have given me step-by-step instructions. I am now much more knowledgeable about my condition.

Cardiac rehabilitation enables patients to obtain information and understand their condition and it is for these reasons that many of the participants continued to attend the classes.

I have found the teaching classes very helpful. I now have a better understanding of what a heart attack is and when I can start doing certain things again.

I was told about giving up smoking and fat in the diet, but I was amazed at how many foods are not good for you. The education classes have been very informative.

Many participants said that they either received very little information about their condition while on coronary care units and general wards or that they were so 'overwhelmed' with information, they could not take it all in. However, the information and teaching elements of cardiac rehabilitation provided them with the opportunity to gain a greater insight into heart disease and life after an MI in a more conducive atmosphere for learning:

The classes here are easy to understand and quite simple to follow. I now understand what a heart attack is, I think, and the instructions I have been given are easy to understand.

When I was in hospital I was overwhelmed with information, but Judith has been wonderful. She's lovely and a great teacher.

Being able to ask questions and receive clear and coherent answers was considered important for a number of the study's participants:

Of course they haven't got time a lot of time to spare on the ward, they were lovely, like, but they were all so very busy. Here at rehab though, we can ask what we like and I got a lot more useful information about what happened to me. I've found this information a great help.

I have benefited tremendously from the rehabilitation classes. The girls here have been great at explaining things to me

One of the participants claimed that she had found a lot of information given to her before her rehabilitation very confusing so was unable to explain what had happened to her children:

I wanted to explain to my daughters all about my heart attack. The one thing I found confusing was

that your heart does not have to stop for you to have a heart attack. I always thought you died when you had a heart attack and that they had to bring you back to life. I now know that a heart attack isn't actually your heart stopping, but that one of the arteries gets blocked. They were great here at explaining this. I now also know about risk factors and I have discussed these with my daughters too.

Axial coding

Once the above categories had been developed, the next step was to explore and identify relationships between them, a process known as axial coding. During this phase of the coding process, the researcher interrelates categories to help form a theory. Thus, axial coding can be seen as the process of building a theoretical model.

To develop a theoretical model that would help explain why women attend cardiac rehabilitation the relationships between the categories were analysed to explore and understand how each of these related to each other. Strauss and Corbin (1998) maintain that during axial coding the researcher combines categories into a much more general category. This is developed through the conceptualization of the data, rather than being developed from the actual words used by respondents. Questions that were asked of each of the emergent categories in the study included: How do the categories relate to each other? What are they indications of? An exploration of the relationships between categories led to a theory about how they all related to each other and whether another, much broader and more over-arching category could be developed that would help explain why women attend cardiac rehabilitation after an MI. Strauss and Corbin (1998) maintain that during axial

coding the conditions and context that give rise to categories should be identified.

The emergent categories were all related through cardiac rehabilitation. In this sense, cardiac rehabilitation was the causal condition for the categories that emerged. By attending cardiac rehabilitation classes the women were able to restore themselves and gain increases in both their confidence and understanding of their condition. Throughout the axial-coding process, the author continuously asked: 'What are these categories (and their properties) an indication of?' By integrating and refining the categories and by exploring the relationship between them, it was recognized that increased confidence, restoration of self and increased understanding of the condition are each an indication of empowerment (*Figure 2*).

Empowerment

Empowerment was developed as a core category because this concept best explained all of the categories that influenced women's decisions to attend phase three post-MI cardiac rehabilitation. It can be argued that increased confidence, restoration of self and understanding of condition are all examples of how women can empower themselves through attending cardiac rehabilitation classes.

When discussing 'empowerment' as part of a developing theoretical framework, an explicit definition was needed. For this study the definition of empowerment used was: the power to take control over one's life; to organize and to demand appropriate access to resources (Ruth, 1997). By attending the classes, the women in the study perceived themselves as more confident, to have gained a greater understanding of their condition and to have 'restored' themselves. Furthermore, participants claimed that rehabilitation allowed them to address the life-style consequences of a heart attack. In essence, these women had become empowered to take control over their lives after having had an MI.

Discussion

This study is only part of a much wider doctoral study which will aim to study the issues surrounding women's attendance at cardiac rehabilitation in more depth. Although only 10 participants took part in this preliminary study, the initial findings support the claim that the women became empowered by attending their cardiac rehabilitation programme. The feminist approach helps understand this, and a number of authors attest the usefulness of feminist grounded theory when studying complex issues related to women (Keddy et al 1996; Kushner and Morrow, 2003).

Feminist research challenges the legitimacy of any research which does not address disempowered and/or invisible women (Donovan, 2000). Indeed, feminists place the concept of empowerment at the heart of feminist research (Maguire, 1987). Through studying and questioning the women about their experiences and by placing empowerment at the heart of an explanation of why women attend rehabilitation, this study meets the feminist

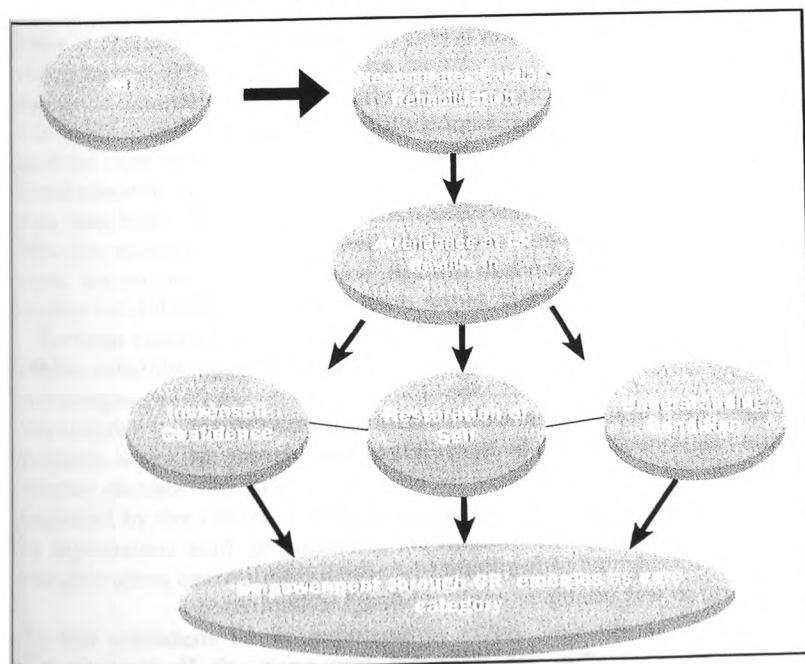


Figure 2. Axial coding. Categories link to each other and build the empowerment theory.

criterion that research must serve the interests of women. Feminist research is designed to uncover, understand and improve the lives of women (Maguire, 1987).

During the data collection phase of the study, the author was particularly interested in discovering how an MI had affected the participants as 'women' in order to ascertain whether having an MI resulted in any perceived female needs. The discussions also focused on how well cardiac rehabilitation met the needs of the female participants. Such questioning was certainly by the feminist principle of placing women at the heart of the research process and the empowerment explanation is useful in elucidating why women attend cardiac rehabilitation programmes.

By attending cardiac rehabilitation programmes, the participants became increasingly aware of their situation and of their desire to improve it. They were instilled with motivation and were encouraged to set, and were helped to achieve, personal goals. By being able to take control over their lives and achieve any objectives set by rehabilitation staff, the women all claimed that they found their rehabilitation programmes both enjoyable and beneficial.

This might explain why they continued to attend. Such information is extremely useful in the development and delivery of cardiac rehabilitation programmes.

Any information that helps explain why patients attend rehabilitation will help health-care workers deliver patient-specific services. An issue commonly discussed in cardiac rehabilitation literature is that of female non-compliance and attendance at cardiac rehabilitation programmes. A number of reasons have been put forward to explain this. Women tend to be older and are less likely to be living with a partner, hence it is potentially harder for them to attend, particularly because women often have limited access to transport. Women can also be put off if there is a lack of gender-specific information (Radley et al, 1998; Thow et al, 2000) and if they have other family and work commitments (Plach, 2002). However, all the women in this study completed their rehabilitation programme and it is important to ask why this was so. An answer to this question may be found from the results gained from additional research in the author's doctoral study. Once all the data have been collected, a gender-specific cardiac rehabilitation model can be developed that might explain why some women do and why some women do not attend cardiac rehabilitation after an MI.

Previous research has suggested that the one aspect of cardiac rehabilitation that women do not like is the exercise component (Schuster et al, 1995; Moore et al, 2003). It was surprising, therefore, to discover that the female participants who took part in this study said that it was the exercise element that they most enjoyed. This might be explained by the constant reassurance and advice offered by experienced staff at cardiac rehabilitation classes not available when exercising independently at home:

I feel confident to do exercises in class. You are monitored all the time and the staff are always available.

It can be argued that the participants experienced a number of personal benefits by attending rehabilitation. These included increased confidence and receiving health information and emotional support. It can therefore be argued that all health professionals should work toward facilitating female attendance to give all women who have experienced an MI the opportunity to experience the beneficial effects of cardiac rehabilitation.

Conclusions

This study supports the argument that cardiac rehabilitation for patients who have experienced an MI can increase their confidence, increase their understanding of their condition and help restore their sense of self. Cardiac rehabilitation can therefore be seen to be empowering. Participants can consciously choose to continue with their rehabilitation programme, thus empowering themselves.

Because the design of this study was qualitative, the findings may not be representative of the wider female population. However, qualitative research is useful in exploring how women suffer, recover from and endure heart disease and how they experience cardiac rehabilitation. Once this has been considered, gender-specific cardiac rehabilitation programmes can be developed which will further improve the quality of life for all female sufferers of myocardial disease and/or infarction.

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KEY POINTS

- Cardiac rehabilitation benefits patients who have experienced a myocardial infarction
- Evidence suggests that women are significantly less likely to be offered cardiac rehabilitation than men and uptake following invitation to cardiac rehabilitation is much lower in women
- Women are more likely to drop out of cardiac rehabilitation than men
- More research is needed into gender-specific cardiac rehabilitation and the experiences of women who have experienced a myocardial infarction

BOOK REVIEW

New chapters added

If you have not yet had the opportunity to browse previous editions of *Cardiac Nursing*, then this latest edition is definitely worth a look. If you have, then there have been many revisions, as well as the addition of several new chapters to reflect current evidence-based practice.

Cardiac Nursing is a comprehensive reference text which covers all aspects of nursing within this field and provides information on anatomy and physiology, assessment, pathophysiology, management, and prevention of heart disease. Even though there is only one chapter devoted to cardiac surgery, I believe this text is useful for nurses caring for surgical patients as it offers a comprehensive overview of the whole disease process.

This edition benefits from the addition of several new chapters:

- ♦ Inflammation
- ♦ Atherosclerosis
- ♦ Genetics
- ♦ Heart rate variability
- ♦ Complementary and alternative medicine

- ♦ Disease management models
- ♦ Nuclear and other scans.

The authors advocate that this text is suitable for basic and advanced nurses. I agree that this is an invaluable text for experienced staff nurses, advanced nurse practitioners, nurse consultants and nurse educators. However, I would recommend that the novice cardiac nurse opt for a less detailed text initially. There are chapters within the assessment section dedicated to chest radiography, echocardiography and nuclear imaging, all of which are outside the scope of practice of junior staff nurses. There is no doubt that the advanced practitioner may require an in depth understanding or indeed utilise such skills as part of an extended role; however, this could potentially overwhelm junior staff. With more nurses performing the physical assessment of patients, the revised chapter on history taking and physical assessment will be particularly useful for them.

Where previous editions have incorporated a chapter on

myocardial ischaemia and infarction, this edition has been revamped and is now more focused towards acute coronary syndromes and reflects the new terminology in current practice.

Although the context of this text is American-based and both the authors and the publishers are American, the content remains both applicable and transferable to cardiac nursing in the UK. The main differences are the use of metric measurements in certain reference ranges for blood tests e.g. cholesterol is specified in mg/dL, whereas in the UK we tend to measure cholesterol in mmol/litre.

In my opinion this is a very comprehensive reference text for cardiac nurses. Although some might consider the text a little pricey, at £48, I consider this to be a competitively priced text book - well worth the money!

Tracey Gibson

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Cardiac Nursing (5th edition)

Susan L Woods, Erika S Sivarajan Froelicher, Sandra Underhill Motzer and Elizabeth J Bridges
ISBN: 078174718X
Lippincott Williams and Wilkins, London, 2004
£48.00
1056 pages

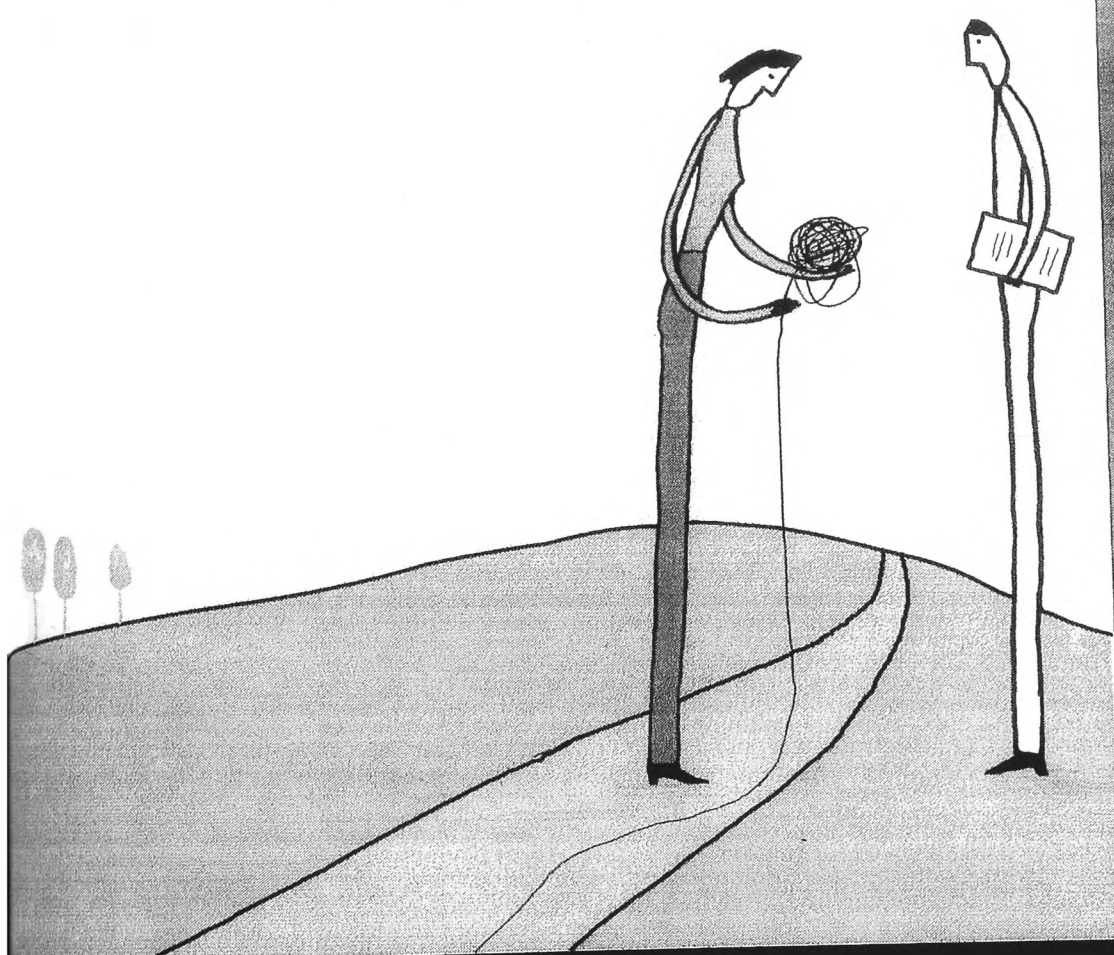
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NURSE RESEARCHER

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Fears, worries and experiences of first-year pre-registration nursing students: a qualitative study

What do nursing students worry about as they set off on their journey towards qualification? This small-scale study conducted by Ray Higginson set out to explore their fears and concerns – some of which appear to have been inadequately addressed in the classroom

key words

- ▶ students
- ▶ stress
- ▶ fear
- ▶ nursing
- ▶ nurse education

Introduction

This research examined nursing students' fears and worries about and experiences of the first year of their nurse training. Little research has been conducted into the specific concerns and experiences of first-year, pre-registration nursing students. What research there is suggests that embarking upon a pre-registration nursing programme is daunting; it induces fear and causes anxiety. The objective of this study was to examine and explore the experiences of a group of first-year nursing students in the school of care sciences at the University of Glamorgan. A grounded theory design was employed and results highlight that there are a number of factors unique to nurse training that can cause fear, worry and anxiety in students. Such factors

include examinations, placements and clinical procedures. The researcher who undertook the study is a senior lecturer at the University of Glamorgan, responsible for clinical skills training and life-science teaching.

Study aim

In response to issues raised by a number of nursing students about their training programme, the researcher set out to explore some of the factors that students perceive to induce fear, worry and anxiety. Some students had also expressed the view that their training causes them anxiety and that certain aspects of their nursing course forced them to confront certain issues that were not necessarily addressed in the classroom. The aim and purpose of this research, therefore, was to explore these fear, worry and anxiety-inducing factors in order to understand some of the students' concerns.

All research conducted at or by the school of care sciences has to be passed by the school's ethics committee. The committee granted approval after reviewing a plan of the proposed study. Student anonymity and confidentiality were maintained at all times. Students were informed that involvement in the study was entirely voluntary and that they were free to withdraw at any time, should they wish to do so.

Literature review

When using a grounded theory research design, some authors recommend that a literature review should not be performed (Strauss and Corbin 1998). However, this position is challenged by others, notably Chenitz and Swanson (1986) and Denzin and Lincoln (2000), who maintain that a literature review is needed in any research process in order to fill in important gaps and highlight areas of practice where research might be needed. Although the issue of whether or not a literature review should be undertaken in a grounded theory study is much debated, it is true to say that many grounded theory studies are undertaken where a literature review has been performed. This is especially true if the area under consideration has not been well researched in the past or where very little is known about a particular subject area.

The researcher accessed the Cumulative Index to Nursing & Allied Health (CINAHL) database and entered the search terms 'student', 'experiences',

'clinical experiences' and 'student anxiety'. Combining these search terms resulted in 829 entries related to student experiences. The results of this initial search were then limited to United Kingdom research articles only, of which there were 64. Of these, only seven specifically investigated students' nurses' fears, worries or anxieties.

Given the limited amount of time available for this small-scale study, the reviewed literature was restricted to UK research studies only. Further, restricting the literature reviewed to research undertaken in the UK meant that the research papers explored were culturally and socially relevant to the sample under study. Wright (2002) asserts that early experiences during nurses' training can have long-term effects on students.

Using a grounded theory research methodology, Griffith (2004) explored qualified nurses' experiences of nurse practitioner training. Results from the study indicated that experiences fell into two distinct categories: experience in the workplace and experiences in the academic environment. The author concluded that qualified nurses employed complex strategies in coping with being both qualified nurses and students on an advanced nursing course. Indeed, a common feature of many research studies that have investigated student nurses' experiences is that combining clinical placements with academic work creates problems for students (Pell 2004, Rhead 1995).

Griffith's study provides a good example of using grounded theory research to explore nursing students' experiences of training. However, all the nurses in this study were qualified/registered nurses who were undertaking a further academic course and, as such, results might not be applicable to pre-registration student nurses.

Using a mixed quantitative and qualitative approach, Howard (2001) investigated student nurses' experiences of Project 2000 pre-registration nurse training. Results from the study showed that student nurses found the common foundation programme stressful, especially having to undertake exams and clinical placements at the same time. Many of the students complained that the combination of placements and course work adversely affected their personal lives. Indeed, Hiller and Philliber (1982) and Kilminster (1997) discovered that nurses on pre-registration training courses often reported many difficulties with family relationships.

Howard's study highlighted another interesting factor concerning assessment. Students complained that their assessments were neither related to their experiences nor to their clinical placements. Academic assessments were perceived as being too abstract and of little relevance to the process of training as a nurse. Thus, this study seems to suggest that a common experience of pre-registration nursing programmes is the perception that clinical training and learning are not related to assessment. Indeed, Howard (2001) maintains that while training student nurses are often not adequately assessed clinically but are overly assessed academically.

In a recent qualitative study, Kevern and Webb (2004) discovered that student nurses often referred to their training as a 'game' in which they had to learn the rules of how to survive academic course work and develop their role as a 'nurse'. Further, female nursing students expressed different concerns than the male students, who were more concerned about financial problems. Mature female students often had to juggle family and domestic issues with nurse training. Again, the participants in Kevern's study felt that combining student life with shifts was problematic. Entering nurse training also represented significant changes in personal and social roles and was perceived as stressful.

Stress in nursing and in nursing students is a well-documented phenomenon, but the extent to which it occurs and means of coping with it vary. It must be acknowledged that stress and fear and anxiety are different concepts. Stress can be seen as the result of unresolved fear and/or anxiety. In a study by Hight (1996) it was shown that nursing students' anxiety can have a negative effect on academic and clinical performance. Further, the programme undertaken – diploma or degree – will result in differing levels of stress and anxiety. It is anticipated that if those factors that cause anxiety and fear in student nurses are known, then these can be addressed and dealt with. Conversely, Swafford (1992) suggests that anxiety among nursing students is less than would be expected and that the anxiety they do experience is of benefit.

Reviewing the available literature revealed that there are potentially many areas that cause concern for nursing students: for example, giving their first injections, seeing the first cardiac arrest and preparing the dead for transportation to the morgue (Morrison and Burnard 1997). The literature review provided the basis for the development of this study. As men-

tioned, when reviewing the available literature there is little research that specifically investigates the fears, worries and anxieties of pre-registration nursing students. This, along with the desire of the researcher to explore some of the concerns expressed to him by students, led to the study being undertaken. Furthermore, the researcher felt that new insights into this area would be achieved by conducting the study and that any significant results could inform the development of a much bigger and wider study.

Research methodology

According to Bryman (2000), qualitative research can be construed as a research strategy that usually emphasises the use of words rather than the use of numbers and quantification in the collection and analysis of data. Further, qualitative research focuses upon an inductive approach that stimulates theory development and generation (Silverman 1999).

The focus of this qualitative approach is different from that of the 'objectifying' approach taken in studies developed from the natural sciences. The deductive nature of quantitative research is far too rigorous to produce new, textually rich data and the preoccupation of quantitative researchers with statistical analysis does not lend itself to the production of new data or to understanding what lies behind a phenomenon (Jackson 1998).

Although it would be possible to conduct a quantitative study that measures the perceptions of nursing students, it would be very difficult to explore the concept of nurses' experiences using a quantitative approach, even though such an approach has been attempted in the past. See, for example, Howard (2001).

This study aimed to explore student nurses' experiences of the first year of their training by analysing the narratives of five first-year nursing students. A tentative theory was derived from the data, with data collection, data analysis and theory development standing close together. Thus, the specific methodological design employed was that of the grounded theory approach as developed by Glaser and Strauss (1967).

Sample

In grounded theory research, the sampling technique used is that of theoreti-

cal sampling (Glaser 2002). The basic tenet of theoretical sampling is 'theoretical relevance'. This means that the experiences of those participants who take part in a research study have to be relevant to the phenomenon under investigation. As this study aimed to explore the fears, worries and anxieties of first-year nursing students, the researcher drew a purposive sample of first-year nursing students. Students were informed that a research study was being undertaken and were invited to take part voluntarily. Initially, they were not told that the research was about any fears, worries or anxieties they might have; only that a research study was being carried out.

Five students agreed to take part. Each student was interviewed twice, with interviews lasting between 45 and 60 minutes. These students were purposefully chosen because their experiences were relevant to the study.

Initially, a bigger sample was anticipated, which may have yielded additional results. However, once the students had been approached, it was considered unethical to keep asking the student population for additional participants: five students willingly volunteered and these five students made up the sample. Although the students had all been taught by the researcher during their first year and therefore knew the researcher, the impact of this on the outcome of the study was considered minimal. Interviews were conducted professionally and in accordance with qualitative research guidelines.

Grounded theory

One of the most commonly used frameworks for the undertaking of qualitative research is the grounded-theory approach developed by Glaser and Strauss (1967). According to LoBiondo-Wood and Haber (1994): 'Grounded theory is used to generate inductively derived substantive and middle-range theories through systematic data collection and analysis and formal theories based on substantive theories.'

In the grounded theory method, theory emerges from the data. Indeed, LeCompte and Preissle (1994) maintain that analytical induction and constant analysis of data is vital in any qualitative research process. The grounded theory approach is very well suited to areas where there is minimal knowledge or when a new perspective on a phenomenon is required (Strauss and Corbin 1998, Glaser 2002, Maijala *et al* 2003).

According to McCann and Clarke (2003), two types of theory can be developed using grounded theory: formal or substantive. Formal theories are more general than substantive theories and deal with a conceptual area of enquiry, such as experience (Morse and Johnson 1991), professionalism and power relations within society. Substantive theories, which are the most common type of theories derived from grounded theory (Morse 1998), concentrate on specific social processes and are developed for narrower empirical areas of study. So grounded theory studies can raise questions that can be later tested quantitatively.

The epistemological assumptions of grounded theory are derived from symbolic interactionism, which explores the processes of interaction between people's social roles and behaviours. Interaction is symbolic because these processes use symbols, words, interpretations and languages (Denzin and Lincoln 2000).

The use of grounded theory – and indeed grounded theory's epistemological foundation, symbolic interactionism – is very well suited to this study. For example, the stethoscope is universally used throughout many hospitals by many different healthcare professionals. Its intended purpose/function is to allow a suitably qualified clinician (doctor, nurse, and/or physiotherapist) to listen to and assess a patient's heart or lungs. However, through analysing the text of first-year nursing students, it became apparent that the stethoscope was more than just a medical instrument. It is seen as a badge of office, a symbol of status, a sign that the user of the stethoscope has reached a certain respectable level. Further, the stethoscope has taken on the role of a piece of clothing to be worn around one's neck. At first, students complain that the stethoscope is a cumbersome piece of equipment. As they progress through their first year, however, its intended function is mastered and its 'status symbol' embraced.

Despite its widespread use in sociological and healthcare research, grounded theory is not without its problems and the approach does have a number of critics. For example, McCann and Clark (2003) and Charmaz (1990) maintain that the main criticisms of grounded theory are that its epistemological assumptions have not been explicated and that its links with existing social theory have decreased over recent years. Others, notably Arden (1999),

Benoliel (1996) and Morse (1998), assert that the recruitment of study participants and the data collection methods are often poorly undertaken in grounded theory research. Further, the idea that the researcher has seemingly to be both subjective and objective when undertaking grounded theory research often leads to confusion and complications (Hutchinson 1993).

A more substantive criticism has been identified by Griffin (1997). Griffin questions the assumptions of symbolic interactionism and, as such, questions the philosophical underpinning of grounded theory. Whereas the social interactionist believes that meaning arises out of the interaction between people, Griffin highlights that a contradicting point of view asserts that meaning is already established in a person's psychological make-up: are meanings the result of interaction or is the meaning just an expression of a pre-existing psychology?

These are serious criticisms but, despite them, grounded theory was used for this research study.

The study

Once the students had agreed to take part, a mutually convenient interview schedule was drawn up and they were interviewed by the researcher on an agreed date. Interviews were conducted in a quiet meeting room and were tape recorded.

Students were asked about their first year of training and were encouraged to comment upon areas of their training that had caused them concern. Typical questions were:

- ☞ what has worried you most about your first year of training?
- ☞ has anything or any particular situation made you anxious while enrolled as a first year nursing student?

Interviews lasted until each student said that he or she had nothing else to express.

Data analysis

Data were collected via the semi-structured interviews and transcribed verbatim from the tape recordings soon after the interviews were completed. Once the data had been obtained, initial coding of the interviews/data began. Initial

coding, called open coding, begins with an exploration of the obtained data. Open coding aims to label data so that discrete concepts and categories can be identified and then compared later. Thus, initial coding began with an exploration of all the different facets of information that were of interest and related to concerns about student training. The aim of building concepts is to produce a relevant list of categories (Smith and Biley 1997). These categories were constructed through line-by-line analysis of the transcribed text. The open coding phase resulted in categories that centred on concepts such as fear, worry and anxiety.

During the next stage of coding – axial coding – the researcher explored the relationships between the categories identified during the open coding stage and developed a tentative theory based upon the fears, worries and anxiety categories.

While analysing the data, certain key questions were kept in mind. For example:

- what is going on in the text?
- what is significant about certain section of the text?

Results

During the analysis of the data, a number of concepts and categories emerged from the transcripts of the student interviews. Common fears and worries included:

- worries about death
- worries about bodily fluids/clinical procedures
- worries about examinations
- financial worries
- concerns over role conflict
- socialisation conflict.

Before theory development can begin and a 'grounded theory' proposed, it is necessary to explore each of these main categories.

Worries about death

All five students expressed concerns about death and dying, especially about seeing a dead patient for the first time:

'I was very worried about seeing my first dead body. I was worried about what it would look like.'

This fear of the dead was not confined solely to those students who had never seen a dead body before. Experiencing the death of a family member did not remove the fear of seeing a dead person in the clinical setting:

'The last time I saw a dead body, it was my grandmother. The thought of seeing another really scared me.'

Although issues that surround death and dying are covered in the classroom, no matter how tactfully, sensitively or thoroughly these issues are addressed, students constantly expressed concerns about death and about how to deal with it:

'How do you tell somebody that their loved one has died? I don't know that I could do that.'

It could be argued that these responses by the student nurses to death and dying demonstrate our societal view of death. The way that different societies deal with and cope with death has been well researched and investigated. Death is not openly discussed in British society; it is shrouded in mystery and is rarely dealt with appropriately. Given this attitudinal predisposition towards death, perhaps the students were expressing a general opinion towards death that might be found in the wider population. This might be true, but very few members of the population are confronted with death and dying on a daily basis.

It is true that students, and indeed qualified staff, are more likely to experience death in certain clinical settings than in others, but the fear of death seemed to cause a great deal of concern among the students who were interviewed:

'Death scares me. I find it difficult enough to talk to sick patients, let alone dying ones. What do you say to someone who is dying?'

Worries about bodily fluids/clinical procedures

Because of the very nature of nursing, nurses deal with situations that are often very difficult. Certain clinical procedures involve intimate contact with patients while others are just unpleasant.

One student spoke of her fear of vomit and other bodily fluids:

'...the smell. I can't think of anything worst than cleaning up sick. I want to be a midwife, anyway, so I hope that I won't see any nasty stuff during my first three years of training.'

Although they had come into nursing with the aim of helping people, some of the students did express concern about contact with faeces and how this might hinder their ability to deliver patient care:

'I'm not sure I am going to be able to wipe someone's bum. I know it'll make me feel sick.'

Another explained how she was worried that her facial expressions and embarrassment would be seen by a patient who had been incontinent:

'You can't hide the way you feel and I would be horrified if a patient was to see that I was repulsed. As a nurse, we are supposed to be professional.'

Aside from concerns about bodily fluids, one of the female students said she was worried about washing male patients. This might seem an obvious concern and worry, but this issue is not really addressed in the classroom. Further, all of the students suggested that issues related to washing patients' private parts was not discussed enough prior to their first clinical placement:

'I have heard about men getting erections while they are being washed. That would be really embarrassing. I am sure that some men would just let a nurse wash them, even if they were capable of washing themselves.'

Interestingly, gender issues around how society views nurses are not well covered by the nursing curriculum.

Certain clinical procedures were also cited as causes of concern:

'It must hurt, giving injections. What if I hurt someone? Would I be asked to leave the course?'

The students were all given the opportunity to practice injection techniques before their first clinical placement. Nevertheless, the students expressed concerns about being able to perform certain clinical procedures, especially the administration of injections.

Another important procedure that has to be perfected is that of taking blood pressure. This is one of the pivotal roles of being a nurse. However, the skill involved in blood pressure measurement is complex and some students find it difficult to master:

'I still can't hear the blood pressure. It is so fiddly and difficult to adjust the cuff pressure while trying listen with the stethoscope. If I can't get the hang of this technique, then I'll be useless on the wards.'

Worries about examinations

A number of students who enrol on a nurse training programme are mature. Many have not studied for a very long time and they fear the prospect of having to undertake examinations. The anxiety over examinations is not, however, confined to mature students. The five students interviewed for this study all expressed concerns about examinations, especially those related to the physical sciences:

'I have not studied for a long time and I am worried that I might fail the examinations on human biology.'

Biology examinations seemed to be the most common cause for concern in relation to examinations.

'I was never very good at biology at school. This is a real concern, as I am not sure I understand all of the concepts.'

'I have found the biology sessions very difficult. I wasn't any good at science at school and I am struggling a bit, especially having to do shifts as well as doing study. I think I would be better at all the course work if I could spend more time on it and less time on placement.'

Students also expressed concerns over time and time management. This is a recognised problem with courses that combine clinical training with academic teaching:

'I am tired most of the time and having to come home after a shift and do course work is a real bind.'

'I just don't seem to have time to do all of the work. The ward sister on my last placement let me do some work on the ward, but you can't concentrate when at work.'

'I am worried about failing exams and seeing my first dead body.'

Money worries

A number of the students expressed concerns about money:

'I had a pretty decent job before I came into my training as an auxiliary

nurse. Now that I have given up working I have found money worries have taken over my life.'

'The bursary that we get is very small compared with my salary and I am struggling to keep up with paying all of the bills.'

The students who expressed most worries about money were the mature students:

'I know that the course is only for three years, but I don't know that I'll be able to afford it.'

Auxiliary/role conflict

An interesting theme that arose from the interviews was that of role conflict, especially if a student had been an auxiliary before commencing qualified nurse training. It would seem that both qualified staff and the student would continue to see the auxiliary-cum-student-nurse as nothing more than a glorified auxiliary:

'I still see myself as an auxiliary nurse; qualified staff just don't seem to take me seriously.'

This 'role conflict' was especially pronounced if a student was to return to their previous ward (where they once had been a paid auxiliary) as a student nurse:

'One of my first placements was on the ward where I used to be a health-care assistant. I just could not get out of that role; whatever I was doing, I would always end up acting as a healthcare assistant, rather than as a nurse in training.'

One student nurse who had also been an auxiliary complained that she saw the two roles (auxiliary/student nurse) as the same:

'If you ask me, the job is the same; I can't see any difference.'

Another seemed determined to shake of the label of auxiliary:

'I was determined not to become just another auxiliary nurse; I am a student and I expected to be treated like one.'

Socialisation

Analysis of the interview text also revealed issues relating to what could be considered socialisation. Socialisation can be defined as the 'process by which

persons acquire the knowledge, skills, and dispositions that make them more or less able members of their society' (Flanagan 1999).

The process of becoming a nurse is far from straightforward and a number of statements relate to the process of 'becoming' a nurse:

'I didn't feel like a nurse at the beginning. I remember putting on the uniform and thinking "I feel as if people should respect me".'

One student asked:

'How should a nurse feel?'

Another student (who had not previously been an auxiliary) was worried that patients and qualified staff would expect them to know too much.

A very interesting issue that arose was that of male nurses being little more than failed doctors. A male student said:

'Patients and relatives keep asking me why I did not become a doctor; they seem to have difficulty accepting that men can be nurses, too.'

And another said:

'There are people who think that male nurses are nothing but failed doctors.'

There does still seem to be the perception that females are nurses and men are doctors; indeed patients often call male nurses 'Doctor' and female doctors 'Nurse'. Further, there is a widely held belief that the role/job is the same and that men are doctors and the women are nurses.

Theory

When analysing the interviews with the five students, a number of issues arose. Some are common to all higher education students, while others are unique to nursing students.

Although it is not possible to provide a detailed analysis of all the psychosocial processes that are involved in the manifestation of fear/worry in nursing students here, it is possible to discuss a tentative grounded theory that could help explain the main causes of fear and worry in certain nursing students. But the themes and concepts that emerged from the study require some form of deeper exploration.

According to Wagner (2001), the essence of theorising is that you start with an observation and then imagine the observation as the outcome of a

(hidden) process. Looking at the themes that have emerged from analysing the data, it is not unreasonable to develop theories to explain or account for each theme individually. For example, it could be argued that the process of socialisation into the role of the nurse is different for men than for women. The male nurses in this study complained of being perceived as failed doctors, for example, rather than as having chosen to enter the profession for any other altruistic reason. This is perhaps why male nurses are often referred to as 'mini' (or 'failed') doctors and female nursing student are not. Patients seem to be able to accept female nurses for who and what they are more readily than they accept a male as a nurse; the perception seems to be that if you are a male nurse, then something has gone wrong, because why would a man want to be a nurse rather than a doctor?

There is a certain perception about what nurses are, how they should behave and what they are expected to do. However, even among the small sample of nurses interviewed for this study there were concerns over exactly what the role entails. For example:

'Exactly what am I supposed to do? How should I act? How should I feel?'

The process of 'becoming' a nurse is complex.

If one examines the other themes – worries about death, bodily fluids/ clinical procedures, examinations and financial matters – then it can be seen that a number of these are not unique to nursing students, whereas others are. For example, it is not unreasonable to maintain that worries and concerns about money and examinations are very common worries that all university students experience. Thus, these worries cannot really be considered unique to the interviewed nursing students. However, it can be asserted that worries about death, bodily fluids and clinical procedures are unique to nursing students.

The university does attempt to address these issues during the first ten months of a student's training, but only in a very superficial way. Discussions about death, dying and bodily fluids are, even today, still taboo subjects that most people tend not to want to think about. How do you prepare an 18-year-old for his or her first experience of death? How do you prepare someone to deal with a patient who has been doubly incontinent and who has vomited? How do you prepare someone to give an injection for the first

time? Nobody knows how they will react and deal with these situations until they arise.

It could be argued that the worries and concerns about clinical procedures and so on are common to all healthcare workers. Perhaps, but it is only nurses (and student nurses) who will have to clean a dead body and prepare it for viewing by relatives; medical and other ancillary staff are rarely involved in the care of a dead patient. It is not surprising, then, that students enrolled upon a nurse training programme express concerns about these issues. Although this study had only a very small sample, the taboo nature of some elements of a nurse's role did manifest itself in expressions of fear and worry.

Conclusion

Because of the taboo nature of some elements of nurse training, discussions within the classroom tend to be brief and superficial. Student nurses do not seem to get the opportunity to discuss the specific fears and worries that undertaking a nurse training programme can induce. Nursing is a very complex profession and the training undertaken by nursing students presents unique situations that induce fear and worry.

Very little can be drawn from a small-scale research project such as this, but the issues and points raised should inform the development of a larger and wider research project that addresses more comprehensively the issue of what causes fear and worry in pre-registration nursing students.

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